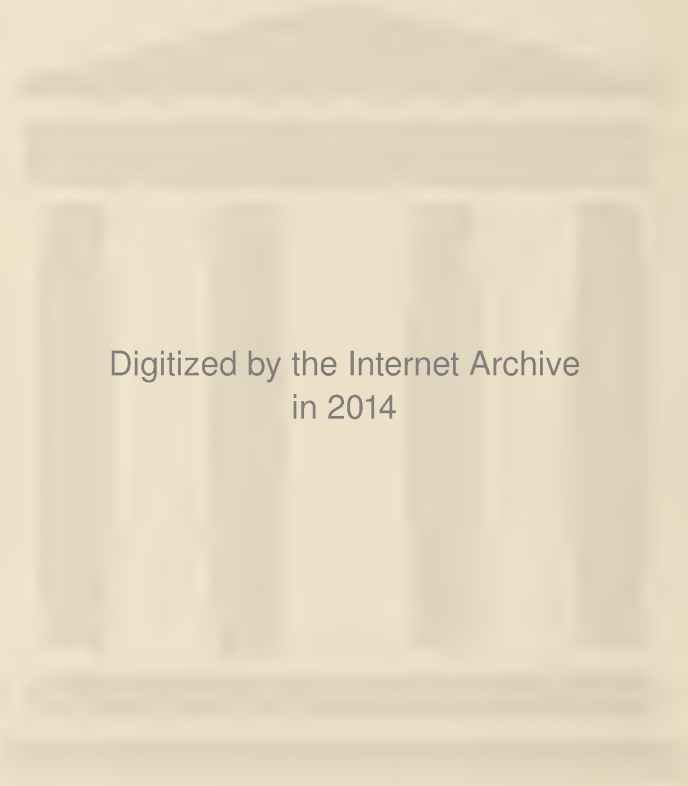

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THE PSYCHIATRIC INSTITUTE-HOSPITAL

BY LEWIS F. PILCHER, LL. D.,
STATE ARCHITECT

In 1920 the State Legislature, in the first draft of the Sage-Machold Bill, authorized the State Hospital Commission to enter into contract obligation of $750,000.00 for construction of a Psychiatric Hospital in New York City.

The State however, did not possess any New York City site.

To ensure the progress of the study of the necessities of the problem and legislatively to state the size and cost of the first portion of the undertaking, the clause permitting the Commission to enter into contract to the extent of $750,000.00 was changed. In place of the authorization, $25,000.00 was appropriated for the development of plans, etc., of a construction to cost $750,000.00.

If this hospital were now in operation the most important factor in the solution of the Metropolitan District problem of housing and bettering the insane would be well on its way to solution.

The real relief will come in the hospital situation when the task of reducing the incidence of mental disease is accomplished.

If the State waits until certain of its people have so far advanced in disease that commitment and restraint are necessary, the institution housing problem will always be in a state of "over-crowdedness."

Suppose instead of attacking the origins of the diseases of smallpox or typhoid we contented ourselves with providing beds and care for those who were stricken by Providence—it is obvious that the demand for sick care could never be adequately met.

To meet just this situation the Sage and Machold Bills of 1920 were developed and passed by the Legislature.

The menace to the community of border-line problems and the established fact that the early condition of many cases that afterward appear as chronic types are not cases of "Insanity" but phases of exhaustion associated with somatic disease or dependent on mental and physical stress led to the acceptance of the practical idea by the legislative leaders that an institution should be established in the over-crowded Metropolitan district where all requiring treatment or advice would be ministered to freely and the methods of reception would be regulated by principles of health and not legal procedure. It was the consensus of opinion that "red tape" discussion should be eliminated by making unnecessary the use of the term "Insanity" either as a medical or legal qualification.

In 1918 the Sage law (Chapter 150, Laws of 1918—re. Chapter 165, Laws of 1920—re. Chapter 106, Laws of 1922) carried a clause, Section 11, providing for the selection of a site for a new hospital for the insane adjacent to the Metropolitan District as defined in the report of the Hospital Development Commission transmitted to the Legislature, February 18, 1918. The sum of $10,000.00 was appropriated to the Hospital Development Commission for securing an option on a site for the new hospital.

The location of the site for the proposed Institute-Hospital is of the very greatest importance and the usefulness and accessibility of the Institute should not be impeded by being forced to accept any land that might be donated—and usefully valuable sites are not donated to the State.

Chapter 150 indicates the willingness upon the part of the State to acquire new land by the means of direct purchase for the sole reason that it was realized that the hospital situation in the Metropolitan District must be relieved.

The following study of the Institute-Hospital problem has been brought to a point where I am fully prepared to present the structural evidence to the Hospital Development Commission; and that Commission should be in the position

of speedily carrying out the provision of the Legislature of 1918 in selecting a proper site and executing an option upon it.

This "site" legislation was drawn only after the most careful consideration of the whole State problem relating to the treatment of all classes of dependents.

The absolute newness of the project, the need of psychiatric aid in the many departments of the State other than the Hospital Department caused the introduction of the restrictive clause that the State Psychiatric Institute should accommodate not less than sixty (60) alleged insane and insane persons *and other persons in need of psychiatric treatment.*

If a psychiatric institute and hospital with a bed capacity for 200 cases were established in New York City for the early treatment of newly noted types of mental disease, resident care, providing all of the possibilities of modern medicine, would in all probability return to their homes, *cured,* or socially and economically rehabilitated not less than 60 per cent of all cases admitted—and of the remaining cases, excluding the organic brain conditions and the cases terminating fatally because of concomitant disease, a large proportion could undoubtedly be returned home in a greatly bettered condition.

Such a hospital would admit approximately 250 cases per month to the hospital and out-patient departments, and under treatment in a year's time would come some 3,000 mentally afflicted persons—and of this great host, who would under the present existing conditions, find their way as committed patients to the State hospitals, 1,800 would be returned each year as useful members of society, and so tend to relieve the State and nation of what is rapidly becoming an overpowering burden.

As the State authorities have been developing a hospital system that would, at the end of ten years adequately care for its insane wards, it can most readily and patently be appreciated what an enormous saving in the humane pro-

gram would result by having the census of those afflicted with mental disease reduced by 18,000 persons and the entire metropolitan community relieved by the active operation of out-patient and diagnostic clinics and medical social service bureaus—these agents seeking out the afflicted in the early stages of disease and providing, before resident treatment be necessary, the means of knowledge of conditions and the medical methods of prevention and cure.

The wonder to the taxpayer and the non-medical man is that the Psychiatric Hospital, the very arch stone of an effectively operated State hospital system has not been established, if not for humane reasons, for economic ones.

The reason perhaps is that the science of psychiatry has been very generally neglected in the college curricula of this country. Instead of being considered a field of internal medicine, its pursuit has been shunted aside into the "rough" of the specialists—from whence the enlightenment of medical experience is now striving, and with a definite measure of success, to establish the full general medical value of psychiatry.

The concordant functioning of the various organs of a human being constitutes sanity and expresses normal behaviour—is not then the understanding and application of the science that determines the motive forces behind behaviour one of the most important pursuits of enlightenment of peoples and governments.

I think we must still beware of the dangers of incurring the accusation of specialistic isolation in the practice and study of the science,—that phase of the problem is your responsibility,—the physical housing and constructional translation of your experience, that is my task and privilege as a designer and constructor.

The aim of medicine is to prevent and cure disease. Human ailments, physical or mental, at first approach manifest themselves in a seemingly infinite and chaotic variety of forms. These forms, however, are the direct result of

the working of the laws of nature, and all forms of disease are governed by those laws.

The greater the understanding of natural law the more the tendency to simplification. If this be accepted by all, as it is by scientists, the progress of modern medicine is along the wrong road. Specialism, developed to the 'nth power, as it is now, is inhibitive rather than productive of advance. Is it not true from this point of view that the last resource of specialty is the surgeon, and "does not he flourish on the failure of the physician—in the sense that the early and curative stages of disease have been overlooked or unsuccessfully combated" (MacKensie, 1919).

The signs of disease in the early stages are the most difficult to detect and to understand. They are mostly subjective phenomena, and it required great experience in human nature and physical understanding to obtain from a patient a coherent description of his sensation. Moreover, the basis of these sensations, the mechanism by which they are produced, requires a very profound knowledge of the physiology of the body—a knowledge that can be obtained only after years of observation of men and women in active living conditions.

It is therefore obvious that to follow a time worn architectural method of creating a plan, following in general the usages of existing hospitals and laboratories, would be to start our quest along wrong lines.

The fabric that will appropriately house the humanizing practice of the relieving science of psychiatry can be constructed only by crystallizing the actual human contact experience of the past ten years interpreted through the lens of modern medical thought.

The definite sources of experience are two fold: 1st, the experiments in the prison field, 2nd, the analysis of the history of thirty thousand admissions to the hospitals of New York State.

Through the efforts of and with the collaboration of the National Committee for Mental Hygiene an experimental

clinic was in 1914 instituted at Sing Sing Prison and continued through 1915 and 1916.

This clinic was under the personal direction of Dr. Bernard Glueck and was a very definite step in the working out of a constructive method to replace the cruelty and neglect that has been long tolerated by both the public and professional opinion.

The field, though discouraging and difficult, was unique in its possibility for research and study. Here were men, suddenly transferred from the habits of life normal in social existence to a condition of living where the freedom of individual act was replaced in inhibitive control.

The sudden, the complete change presented the chance of analysis of the human soul, chastened to the quick. The results of the effects of imprisonment, its numbing and deteriorating effect, were witnessed. The past had been failure to the individual and his release a social menace—and why this failure? first, because of a lack of understanding of what the real "being" of the prisoner was, and, second, because this knowledge being established there was none trained to strengthen the man through his prison career, and upon its termination make possible his return to the world with a developed sense of responsibility.

The practical result of the Sing Sing pioneer work was the decision in 1915 by the State of New York to establish a classification unit at this prison, the operation of which should be based upon the findings of a psychiatric clinic, which should be carried on in a structure equipped for obtaining a complete physical and mental audit of each prisoner sent to a New York State prison.

The science had proved itself a humane and economic procedure, an instrument necessary to the State for knowing the task that it had to face in taking care of those who had broken its laws.

Two million dollars have been appropriated and the fabric of the four buildings constituting the first classification unit has been completed.

The question of equipment and of personnel is one of the most paramount and immediate importance. The progress of the clinic work most intimately interlocks with the responsibilities of the State hospital system and in the Machold Law (1920), a description of which follows, those who wrote it had in mind the interlocking activities of the "penal outpost" of the Institute.

The government has in these buildings given a tangible recognition of the claims of science; it has admitted in a most practical way, and for the first time as far as I know, that psychiatry is an economic and productive coefficient of modern scientific and preventive medicine.

In 1918 the Hospital Development Commission after exhaustive study of the New York State hospitals, recommended the establishment of an institution in New York City that should combine the features of the psychiatric institute and a psychopathic hospital.

It was believed that the establishment of such an institution, lacking as it would most of the characteristics of an ordinary hospital, for the insane, would induce very many early cases of mental disorder to apply to it for relief and so prevent them from developing permanent insanity before receiving treatment. The availability of the best possible treatment for mental disorders in the midst of the crowded metropolitan district would result in the return of very many afflicted patients to their homes or families without the otherwise inevitable scheme of an enforced residence in the insane hospital. The institution would also serve as a distributing agency for the mental cases and would enable intensive study in the case of obscure mental maladies before these would be committed to a State hospital. The Commission authorized a survey of the proposed problem in all of its details to be made as the result of which visits were made to Baltimore, Boston, Ann Arbor and Chicago. Numerous consultations and conferences were held with the recognized leaders in the science of the treatment of those afflicted with mental disorders.

During the year 1919 as a result of the intensive study carried on by the medical committee a definite program was determined upon outlining the requirements for the combined psychopathic hospital and Psychiatric Institute that should provide for the facilities for the treatment of incipient mental disorders, reception cases, medical education and research. It was determined by the Legislature that the clinical psychiatric methods should be applied to the management of various phases of institutional activity in other than State hospitals. In the prisons, the methods have already been so usefully applied that an entire classification unit has been constructed at Sing Sing. The total result of the studies of 1918, 1919 and 1920 opened up a new field for medical work.

Construction Program

The Legislature of 1920 in accordance with the recommendations of the State Hospital Development Commission and based upon the program resulting from the intensive work of 1919, passed what is known as the Machold Bill establishing the New York State Psychiatric Institute. This legislation defined the objects of this institute to be that of conducting studies into the causes, nature and treatment of diseases afflicting the mind, brain and nervous system, to discover and apply more efficient measures of prevention, treatment and cure of such disorders in order that their numbers shall be decreased; conducting regular and special courses of instruction for physicians and others, in order to improve methods of cure and treatment of patients; for the development of methods of prevention and cure through an out-patient department, the scope of which the law defines. They placed the newly named institute under the direction of the Hospital Commission and authorized its removal from its present location on Ward's Island to a site to be determined upon. The law was especially framed in order that its facilities might be made use of by the

various institutions of the State. Among the provisions of the law was one that related to the admission of private patients, therefore in the development of plans for the Psychiatric Institute necessary provision will have to be made for this class of cases.

The Legislature of 1922 reappropriated the $25,000.00 which was originally made available and is now, in its entirety, available for the development of plans, models, etc.

To fulfil the requirements of the law the Institute must have six major departments.

1. Administration.
2. Out-patient clinics.
3. Diagnostic clinic.
4. Research and teaching.
5. Hospital providing 180 beds for adults and 20 beds for children.
6. Residence for visiting physicians and personnel.

The study of the arrangements constructed for the psychiatric work at Baltimore, Boston and Ann Arbor made it patent that many activities should be housed in such a way that they would be easily accessible to both the psychopathic hospital and the clinic and research building. The various requirements so evidently defined by experience determined an "H" shape plan.

The lower part of (A) the plan requires a 4 story building in which are housed the administration, the out-patient, private rooms for patients, living accommodations for the institute and hospital personnel and the rooms for research, and teaching.

The upper part (B) of the "H" provides for the housing of the rooms for therapeutic treatment, X-ray, laundry, patient dormitories, dayrooms, single rooms and their dependencies, surgical facilities, gymnasium photography. The arm (C) connecting the upper and lower buildings contains the diagnostic clinic, the various laboratories, dining rooms, kitchens, provisions for the housing and care for

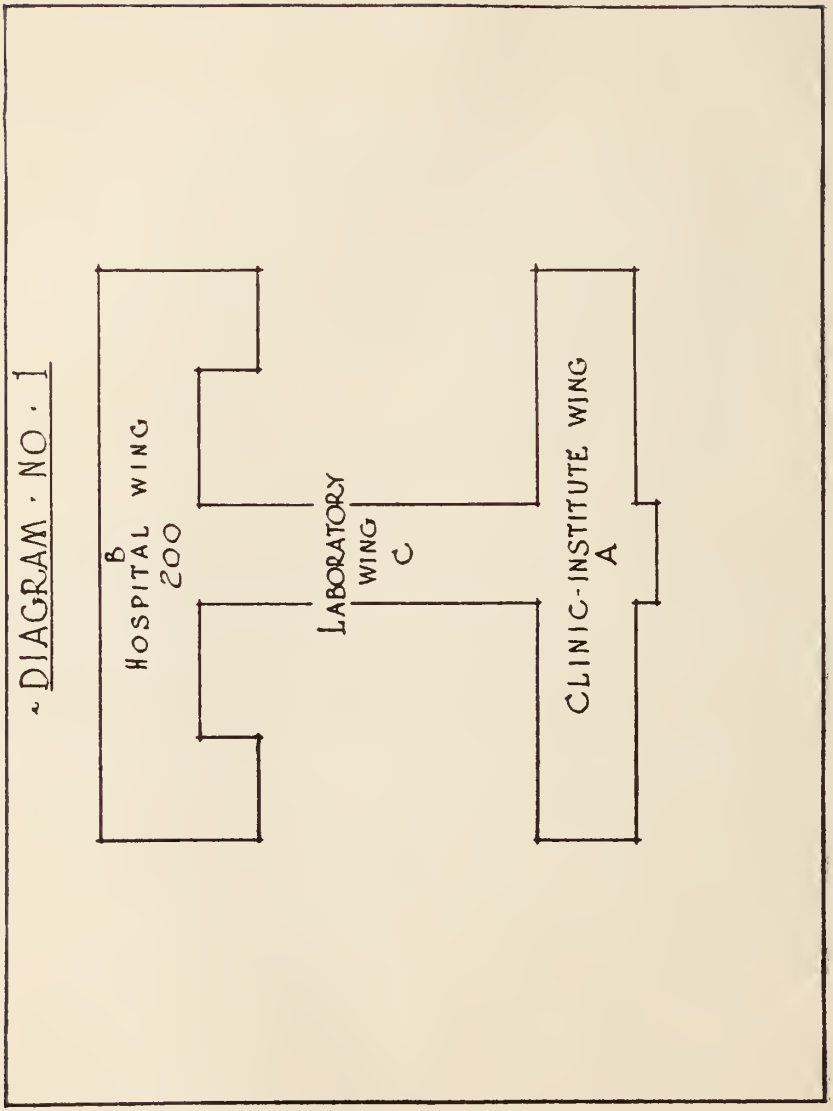


DIAGRAM · NO · 1
B
HOSPITAL WING
200
LABORATORY
WING
C
CLINIC-INSTITUTE WING
A

children and those dependencies for receiving patients that must necessarily be provided as segregated units apart from the general reception and out-patient clinic areas where those afflicted with infectious diseases or in a disturbed state may be provided for without upsetting the orderly and safe conduct of the business of the rest of the institute.

The plans developed in collaboration with the medical committee provide in detail for the various activities which the experience gained by the larger General Committee deemed to be practically mandatory as follows:

I. Administration

The Administration is centrally located in the Institute portion of the structure on the first floor and consists of a series of administrative and business offices arranged for the efficient and economic transaction of the executive work of the institution; a waiting room, steward's office, bookkeeper's room, stenographer's room, coat room and telephone and information office have been planned for.

II. Out-Patient Clinic

The consideration of the out-patient clinic problem early made evident the advisability of three entrances to the clinic.

One entrance is proposed for the ordinary quiet case, chiefly mild psychoses, borderland types or psychoneurotics. These patients would make up a large bulk of applicants, and the portion of the building most easy of access, the high basement, has been selected for their treatment. A large waiting room adequately lighted and supplied with toilets for men and women, and five physicians' examining rooms are provided for the medical work required for this general class. On the same floor located so that they are convenient both for the out-patients and the hospital patients are the eight rooms necessary for the X-ray exposure and treatment work. The separate rooms for gastro-intestinal, eye, throat, nose and ear, endocrinology, spinal and Wasser-

mann, dental and psychological examination work. The eye, ear, throat and nose rooms have dark dependency rooms. The psychological examination room is made sound proof. On the same floor in the hospital wing the rooms for hydro-, electro- and mechano-therapy treatment with the necessary pack room, rest room, blood pressure treatment room, dressing rooms and toilets have been provided. Special rooms are provided for work in cystoscopic work and stomach content examination and record.

A great drawback in out-patient psychiatric work has always been due to the fact that the examination of each individual takes, as a rule, a considerable time and long tedious waits, often hours are entailed upon those wishing to be examined as well as those who accompany patients to the clinic.

To regulate this obvious trouble and difficulty in organization, the introduction of an appointment record room and clinical accommodation has been arranged for, adjacent to and functioning in connection with the social service bureau.

The development of the appointment system should be carried as far as possible. The experience of the new operating diagnostic clinics emphasize the absolute necessity of as far as possible solving the housing of this phase of the Institute-Hospital in the creation of the plan and not leaving it to be "tacked on" is a consideration of secondary importance. In this relation it is of course understood and provided for, that all emergency cases must be promptly attended to.

The second entrance has been planned for the reception of the disturbed, restless or resistive patients or those having some infectious disease. For these two cases two wards together with the necessary examining rooms, waiting room and toilet have been introduced. Adjacent these wards, on account of the emergency and at times, the dangerous character of the patients, provision has been made for the residence of an interne.

The third entrance has been provided for those patients

necessitating treatment apart from the general out-patient group. In this selective group are included children and those requiring intensive treatment. For these patients adequate examining rooms have been provided on the first floor where five examination rooms have been planned together with a waiting room. On this floor adjacent the treatment rooms a temporary ward has been planned for.

In the preventative work of the Institute-Hospital especial efforts are being given to the study of the reception and treatment of children under the age of 15 years. This group should furnish a large number of cases. If arrangement be made for separate entrance for the children, parents, teachers and others will have less hesitation in bringing children for examination than if they were subject to the contact of reception with the general adult clinic and the annoyances resulting from the inevitable delays in securing an audience with the physician.

A patient belonging to the first group arriving at what would perhaps be the main entrance of the clinic should be given without any long delay a rapid preliminary examination, and if the clinic is already filled for that period and the case is not urgent, (acutely sick, suicidal, etc.) he should be given an appointment for the next available period. If urgent, the case should of course be examined and proper action taken at once. The preliminary examination will also allow of a certain classification of patients and differentiation of groups that might profitably be handled e. g., patients requiring special intensive treatment or a short period of observation. These could go to the waiting and examining rooms which are provided on the first floor and the adjacent temporary ward.

The children arriving through their special entrance should be taken into a suitable waiting room and given a perliminary examination and appointments arranged as indicated.

Facilities will be provided consisting of quarters, examining rooms, etc., in connection with the out-patient service

when hospital paroled patients shall report and be examined. These parole clinics run from 40 to 70 patients a session, arranged for in connection with the social service bureau and timed at suitable hours so as not to conflict with the working of the regular out-patient clinics and making possible an additional important use for the curative apparatus provided in the Institute. Health will be studied and aid and service for its continuance will be provided and given.

III. Diagnostic Clinic

The requirements for the efficient working of the diagnostic clinic have been arranged so that the laboratory, examination and treatment rooms are available for both the hospital and the out-patient clinics.

I have already described the location on the first floor of those necessities demanded for hydro-, electro- and mechano-therapeutic work and for the physical examination and treatment of patients.

IV. Research and Teaching

On the second floor the laboratory rooms necessary for the research work connected with the diagnostic clinic have been placed as part of the general laboratory section. These laboratories have been grouped in the arm (Diagram 1, C.) connecting the Hospital and the Institute and have been placed on the second floor so that they may be especially convenient to the spaces occupied by the teaching work of the Institute. They are lighted directly from the courts. They are planned rectangular in shape so as to make possible convenient subsequent subdivision. The necessary facilities for five major laboratory procedures have been arranged for: (1) the psychological laboratory, (2) clinical laboratory (including serological, urological, gastro-enterological, etc.), (3) bacteriological laboratory, (4) chemical laboratory, (5) neuropathological laboratory.

The psychological laboratory is designed for standardiz-

ing and promoting psychopathological investigation and has been placed where it is shown on plan, because the work should be carried on in close conjunction with the general staff of the Institute.

On this floor, in the Institute wing, has been arranged the large lecture room to seat 150 people. In the rear of the lecture room there is a projection room so arranged that the projection apparatus and the necessary confusion in its manipulation is out of hearing and sight of the students and hearers and so removes a disturbing factor. To the rear of the projection room is a room large enough to adequately house the charts necessary in the work of teaching. On the other side of the lecture room and entering directly to the platform is the patients' waiting room. The director is provided with an office placed in a position where he can govern the activities of the entire floor. Provision has been made, too, for a library and a museum.

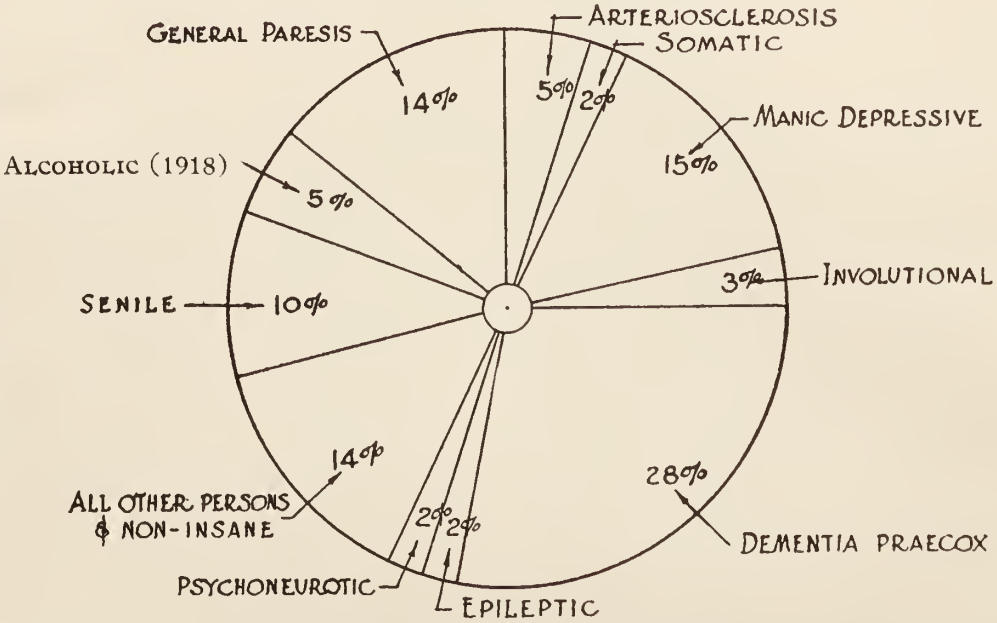
The Hospital has been designed to meet the necessities of medical treatment of a group of mentally diseased patients that present the types and percentage of types illustrated on the accompanying diagram.

The averages expressed in this diagramatic record have been deduced from the analysis of 7,000 reception cases in the Metropolitan District.

The Hospital arrangements and the proportion of single rooms and treatment dependencies are planned to house and treat with the best possible effect the particular classes that the study of the 7,000 local admissions and the 30,000 general admissions have given us a starting knowledge of.

In other words the plan and its resulting construction has been designed, not to merely make a building, but rather as a structural fabric, that must be a sincere and, as far as construction can be vitalized, a living presentation of the big curative motif for human relief that it really is.

DIAGRAM NO 2



AVERAGES RESULTING FROM THE RECORDS OF 7,000 ADMISSIONS IN THE METROPOLITAN DISTRICT

V. Hospital

On the first, second, third and fourth floors of the Hospital wing provision has been made for six classification dormitories, planned to care for six patients in each dormitory. On each of these floors three of these classification dormitories together with three single rooms with the necessary dependencies of utility room, toilet, bathroom, nurses' toilet, dressing room and dining room have been arranged for men and three for women. The necessary dayroom space has been arranged for each sex. The dayrooms open upon porches planned to be open in summer and enclosed in winter.

VI. Visiting Doctors and Personnel

As a result of the further consideration of the Institute problem by the Medical Committee of the Hospital Development Commission it was in 1920 resolved that a minute be made upon the records of that Committee to the effect that the Psychiatric Hospital should follow the lines laid down in the Report of the Metropolitan District Committee in 1918, and "Moreover, that such Psychiatric Hospital should be so designed and upon such a site as to permit of its later expansion as the future needs may demonstrate to be necessary (the extension under intensive consideration being the Medical-Surgical Hospital); that such a Hospital should be made the center for study and teaching for the entire State Hospital System and that it should contain at least ten (10) bed-rooms which could be occupied by members of the staff of the various State hospitals on their visits to the Psychiatric Hospital for purposes of study.

To make adequate provision for the accommodations for the required living purposes for the visiting doctors and the Hospital personnel, the entire fourth floor of the Institute wing and the area connecting the Institute and Hospital wings have been assigned to the arrangement of these living quarters and the necessary dependencies that must be furnished to make living a comfortable possibility.

The fifth floor of the Hospital wing contains the rooms necessary to house the major and minor surgical requirements of the Hospital.

These consist of a major operating room, with its dependencies of dressing and toilet, sterilization, supplies and storage and a minor or pus operating room is also planned for with an entirely separate range of depending rooms. Serving both of these surgical units is a post operative care and recovery room.

On the same floor are suitable spaces for a gymnasium, with its accessories and an area wherein photography and chart making have been planned for.

RECAPITULATION

Psychiatric Institute-Hospital

Departments:

1. Administration.
2. Out-patient.
3. Diagnostic clinic.
4. Research and teaching.
5. Hospital 200 beds (180 adults and 20 children).
6. Residence for 10 visiting doctors and personnel.

1. *Administration*

Centrally located administrative and business offices.
Waiting rooms.
Steward's office.
Bookkeeper's office.
Stenographers' office.
Officers' dining room.
Coat room.
Telephone and information office.

2. *Out-Patient*

Large waiting room and toilets.
Physicians' examining rooms (4 or 5).
Treatment, hydro-, electro- and mechano-therapy, salvarsan.

Social service (4 rooms).
Record room with safe.
Reception wards for disturbed and infectious cases.

3. *Diagnostic Clinic*

Located so that it is convenient for both out-door and hospital patients.

a. Waiting rooms (2) and toilets (2).
b. X-ray (with rooms for treatment, exposure, opaque meal, waiting, dressing, dark room and apparatus rooms.
c. Dental (2 chairs).
d. Eye, ear, nose and throat (with dark rooms).
e. Neurological and electro-diagnosis.
f. Spinal and Wassermann.
g. Internal medicine (with separate rooms for gastro-intestinal examination, and cardiac and endocrinological examination).
h. Clinical laboratory for routine examination of urine, blood, spinal fluids, gastric contents, stools, etc.
i. Psychological, 2 examining rooms (sound proof).

4. *Research and Teaching*

Neuropathological laboratory.
Chemical laboratory.
Clinical laboratory.
Bacteriological laboratory.
Psychological laboratory.
Photography.
Museum room.
Library.
Chart room.
Large lecture hall (150).
Small lecture hall (30).
Students' coat room.

Director's office (2 rooms and toilet).
General staff office and toilet.
Record room.
Clinical stenographers' office (3).

5. *Hospital—Male and Female Wards*

3 wards for men, 30 beds.
3 wards for women, 30 beds.
2 wards for children, 10 beds.
Surgery.

Male Side

(1) 2 wards for 11 patients each, each ward to have:
   a. Serving room and diet kitchen.
   b. Dining room.
   c. Occupation room.
   d. Utility room.
   e. Toilet and bath.
   f. Day room.
   g. 4-bed dormitory.
   h. 7 single rooms.
   i. Nurses' room.
   j. Physicians' examining room.

(2) 1 ward for 8 patients (disturbed class). Same arrangements as 11 patient ward except have 5 single rooms, one 3-bed dormitory, 2 continuous bath tubs.

(3) Surgery.
   a. Operating and preparation rooms for major cases.
   b. Operating and preparation rooms for pus cases.

(4) Quarters for 3 resident physicians and 4 internes.

(5) Quarters for 10 visiting physicians.

Female Side

Same arrangement of wards as male side except has children's wards instead of surgery and physicians' quarters.

Personnel Quarters

Women top floor female wing.
Men top floor male wing.

Kitchen and Nurses' Dining Room

Photography—Gymnasium and Drafting Room

On top floor.

Animal Rooms

The question of advisability of constructing an animal room on the roof of the building has at various times been the subject of discussion. In actual practice it has been demonstrated that such an activity is a detriment to the use and maintenance of the building of which it is a part. The animal rooms will draw rats all over the building, no matter how carefully the quarters are isolated. The ravages of rats in a building, the chance of the gnawing of wires and the possibility of ringing of emergency bells—would make it improper to incorporate the animal rooms in the Institute-Hospital building proper. A separate construction should be provided.

Personnel

I. *Medical*

The State has already provided a good portion of the required medical personnel in the clinical and laboratory organization of the present Psychiatric Institute, the staff of which now comprises a director and eight assistants, physicians and research workers. The medical personnel for whom provision for work and support has been made in the tentative plans for the Institute-Hospital include the following:

Director:

The responsible head of the whole institution, non-resident. This officer must be much more than a mere adminis-

trator of medical work and research. He necessarily will have to be so ably experienced to establish and keep a grasp upon the whole work being carried on in the Institute-Hospital and the central work emanating from it. His task makes much greater demands than that of an ordinary medical head or chief of a definite service—responsibilities that deal with clearly pointed and classifiable issues.

Psychiatrist-in-Chief:

In charge of the clinical work and treatment activities of the Hospital. Nonresident.

Associate Chief Psychiatrist:

In charge of the out-patient department. Nonresident.

Associate in Internal Medicine:

Working in close cooperation with the chief psychiatrist. Nonresident.

Resident Physician:

In charge of the admissions and discharges of the Hospital and the general work of the house staff.

House Staff:

Two assistant resident physicians, four internes and other physicians sent for service from the State hospitals and from other State institutions dealing with psychiatric problems.

Related to the activities of the clinical department are the clerical assistants and social service workers.

Laboratory Assistants:

For the laboratory diagnostic and research activities there should be a clinical pathologist, bacteriologist, biochemist, neuropathologist, psychologist and a sufficient number of technicians.

II. *Business Department*

This will be in charge of a steward, provided with the necessary assistants. Related to the department and inter-

locking with it is the department of nursing in its phases of food supply and house-keeping. This should be in charge of a post-graduate worker, with a dietitian assistant.

III. *Department of Nursing*

This department should be in charge of a supervising nurse with an assistant supervisor on day duty and an assistant supervisor on night duty.

The number of graduate nurses, attendants and orderlies for the ward and out-patient clinic service will depend on the admission rate, and turn-over of patients and the extent to which special treatment activities are utilized, both medical and surgical.

IV. *Occupational Therapy*

In this department there should be a competent instructor assisted by 2 nurses trained in the special demands of this betterment treatment.

V. *Other Special Treatments*

There will be required the usual personnel for hydrotherapy and massage, electrotherapy, and other physical procedures.

VI. *Domestic Service*

This work should be done under the direction of the supervising nurse. The number of cleaners and linen room workers required will depend somewhat on how much the service of the patients are used.

VII. *Miscellaneous*

The laundry work, cooking and food preparation and service will necessitate the usual personnel. These activities should be under the charge of the steward as should also the mechanical force and other employees required for the operation and repair of plant.

NEED OF A NEW CITY PSYCHOPATHIC HOSPITAL IN NEW YORK*

BY COL. HOMER FOLKS,
SECRETARY, STATE CHARITIES AID ASSOCIATION

I know I shall disappoint you when I say I have no paper to read!

I should have felt wholly incompetent to accept this invitation to speak on psychopathic hospitals (which I did late in the day) if it had meant discussion of the medical considerations involved, or even perhaps, of the strictly scientific aspects of the subject. May we not assume those to be settled, in view of the successful demonstrations which we have seen in other cities, and in view of the commitment of this State to the project by legislation in 1904 and again in 1920 to secure a site for a hospital in the City of New York, and the commitment of the city to the project by the selection of a site for such a hospital in 1906? We may therefore, devote a short time, not to a discussion of the inherent problems but rather to the method of attacking the legislative and financial aspects of the question. I speak, of course, firstly for the State Charities Aid Association. I have no official warrant to speak for the City, but I have taken pains to secure a statement of the opinions, views, and purposes of at least certain of the City authorities most intimately concerned and I think I can speak with a knowledge of what their ideas and plans are.

I must go back a little bit further into history than Mr. Pilcher in order to make clear the situation as I see it—as far back as 1901-1902. The State Charities Aid Association in its reports to the State Hospital Commission at that time urged the establishment of a psychopathic hospital in New York City. I don't need to tell you that we did not do that on our own idea so to speak, but we derived our

* Address at Quarterly Conference at Central Islip State Hospital, October 5, 1922.

convictions and impressions very largely from the then chairman of the State Hospital Commission, as a result of his studies in Europe, Dr. Frederic Peterson. As a result of that recommendation and consideration of the subject, and the urging of it by Dr. Peterson, who was always ready to be of assistance, a bill was passed in 1904. That bill contemplated a site to be provided by the City and a building to be constructed and operated by the State, in connection with the Psychiatric Institute.

I was struck, as I listened to Mr. Pilcher's development of his theme, by the fact that the general outline of the objectives of the then proposed hospital, is very similar to those now proposed, after an interval of fifteen or sixteen years. Of course, Mr. Pilcher developed those objectives with a great wealth of detail and with great care in a very convincing way which would not have been possible fifteen years ago. Many of those particular devices of treatment, etc., were not then current, but the objective in general, it seems to me, is practically identical with that of the earlier period. Following upon that authority, the City did proceed after a conference with the State authorities to acquire a site, as perhaps some will recall. It acquired a site at 104th Street and East River. I have forgotten the amount paid for it, but it was a block frontage on the river and cost a very substantial sum of money. Unfortunately, or possibly fortunately, differences of opinion arose. At any rate the State authorities recommended the site and certified to its suitability, but the State authorities after having accepted the site, changed their mind about it, stating that it was not sufficiently suitable for the purpose to justify the State in going ahead, and the effort for joint action involving both the State and City came to naught.

In 1920 the Legislature enacted a bill to which Mr. Pilcher referred; there was also passed at the same time by the Legislature a bill again authorizing the City to provide the site. That bill was vetoed by the Mayor. Then came the investigations of the Hospital Development Commission

and the formation of plans, etc. During the last stages of the session of the Legislature a year ago, the City announced, through its responsible officials, its purpose to establish a city psychopathic hospital, and it seemed to me there was great danger that the proposed State and City institutions might be regarded as alternatives, one to the other, and as aiming at the same objectives and purposes and that possibly we would not get either one because the public did not know which was needed.

If, therefore, we could clarify our thoughts on the question of the psychopathic hospital to be operated by the State and the one to be operated by the City, and the very important field for each and if we could all come together in advance of the legislative session in full agreement so that we might say at Albany, "Yes indeed, the City ought to have a psychopathic hospital, but it would be different from the one the State will have; the City needs the one and the State the other," perhaps, we might get one, or, with the best of good fortune, get both.

The legislative enactment of 1904 was based on the assumption that the proposed State psychopathic hospital would replace the reception wards of Bellevue. That was not in the statute itself, but it was an understanding between the City and State authorities and in the memorandum on which the Board of Estimate of the City acted in acquiring the site, they based their calculations on the fact that they would save by not having to operate Bellevue wards and counted this saving as an offset to the interest on the cost of the site.

That is not the case in this present State psychopathic hospital proposal for the reason that the proposed capacity is only very slightly in excess of the present Bellevue reception wards, which perform certain functions of a local character not alluded to in the State plans as developed. It has obviously a very different objective. This State plan does not in any respect propose to relieve the City of the operation of the reception wards at Bellevue or whatever might take their place.

Now I should like first to dwell a moment,—I shall not be very long,— on the volume and on the total need of the field of work to be covered by these two proposed institutions; viz.: a two hundred bed State psychopathic hospital and a five hundred bed City Hospital for Nervous Diseases. It is very difficult for any of us, whether we live in the city or out of it, fully to visualize and sense, and act upon and plan for, the actual magnitude of the need of anything affecting the social needs of the City of New York. We know mathematically the number of people and in a vague way sense its relationship to the State and country as a whole, but we have no abiding realization of the magnitude of that problem. I found myself thinking some time ago of the feebleminded as a State problem. Buffalo, of course, is a big city; it is the second city in New York State; New York City has an institution for the feebleminded and it was urged that Buffalo also ought to have such an institution. It should no doubt; but I did not quite take in at the moment that Buffalo can grow five years more at its normal rate of growth and by the end of that time it will be one tenth as big as the city of New York is now, which is a literal fact. There are only three states out of the forty-eight which all told, with all their cities, all their farmers, everybody put together, have as many people as New York City;—Illinois with Chicago; Pennsylvania with Philadelphia, and Ohio with Cleveland and Cincinnati. If all the population of the United States were divided equally numerically into 48 states, New York City would make almost three of those states. If we could go up in an aeroplane high enough and our eyes were good enough to look all over this broad country, trace out the New England States with their busy industries, New York City, the Atlantic Seaboard, Philadelphia, the southern cotton states with eight or ten millions of negroes, the farming states of the Mississippi Valley, and the far west, and realize what one hundred and five millions plus of people mean, we could then come back and say one out of eighteen live in New York City. One

eighteenth of the entire problem of psychiatry in the United States numerically considered is that afforded by the City of New York.

One thing further: Pavilion F in the City of Albany, I suppose, is a very good small psychopathic hospital and meets a very real situation. The annual increment to the population of New York City is comparable to that of the entire City of Albany so that if in 1904 we had had all the psychopathic hospitals in New York City that were needed; if from that time we had kept up to our job, we would have added one each year during fifteen years, or about fifteen so-called Pavilion Fs, to be abreast with our job at the present time. Therefore to speak of *a* psychopathic hospital for New York City is a little bit like talking about *a* high school for New York City, or *a* theatre or *the* theatre or *the* hotel of the City of New York. One psychopathic hospital will no more than make a good-sized dent in the situation as compared to what is needed.

Let us return a moment to the Bellevue reception wards. There has been as you all know tremendous improvement in the functioning, size, development and character of those wards. The older of us remember when it was a poor season that did not develop at least one and probably two or three first-class scandals in the Bellevue reception wards for the insane. We have not had any for quite a long time and to the best of my knowledge we have not deserved any. That is due primarily to two things; the resident full-time psychiatrist, and second, the introduction of the trained nurses—especially the women nurses. Those wards have had a creditable history and a large development; it is only seemly that that development should not come to a stop. The State is not going to replace them, and in the development of the work of the City, in the building up of an enlarged and better Bellevue, it is very natural and desirable that the psychopathic wards of that great hospital should have their normal development. What would that development be? It would be firstly, in the eyes

of those chiefly interested in the city, an enlargement of its own present primary function, i. e., the reception and examination of the alleged insane or those with a certain amount of mental disturbance or those who require some sort of detention. As you know that work is pushing farther and farther back into the earlier and earlier stages of mental disease and the proportion of those admitted there and cared for a shorter or longer time and not committed at all, is a very considerable one. That would be the backbone as I see it, of the city psychopathic hospital service. From that it may develop in either of two directions. The psychopathic hospital of the city in addition to merely maintaining a reception service, might firstly aim to keep certain patients somewhat longer than at present with a view to preventing their commitment. This would bring it somewhat nearer the field of the State hospital per se. Or secondly it might face the other way and try to bring in more of the border-line cases, connect up with the courts and their need for expert examinations; with the schools; with the police authorities; with other hospitals, etc. It might push back earlier chronologically and sociologically in the development of the cases, or it might hold them for a somewhat longer period of time. I think it is Dr. Gregory's opinion that it should develop in both of these directions. If I have any doubt it would be as to the plan of retaining certain patients longer. I am quite clear there should be no confusion of mind as between the function of the State hospital and of the City psychopathic hospital. They should not duplicate each other in any way and we should be careful not to allow a psychopathic hospital to gradually take on a function which appears to be based upon the failure, inadequacy, or over-congestion of the State hospital service. We should leave the load of the State job squarely, fairly, and wholly, on the shoulders of the State; and leave the city load on the shoulders of the city.

I do not know that this division of the field, this endeavor

to see two jobs and realize two institutions, would require any change or consideration of change whatever in the functions of the State psychopathic hospital as outlined by the State Hospital Development Commission, by the Commission, and by Mr. Pilcher. It might just possibly be desirable that the State psychopathic hospital should emphasize a little more the question of *research* into the nature, treatment, etc., of mental disease, i. e., a little more than appeared in the drawings and plans which seemed to stress a large reception service and the outpatient work. That is, I think the State might take a little longer look at the problem and might undertake work, the benefits of which would be realized after a longer period of time and the results of which, as is true of all research work, would be of permanent value to the service. In other words, I should think the State Psychopathic Hospital might, in its relation to the Institute and to the State service, be a little like the relationship of the Rockefeller Hospital to the Rockefeller Institute and the research work carried on there, but Dr. James knows more about that than I do. The hospital itself is entirely subordinate to the research work and it receives from time to time particular groups or classes of patients (and only those) which they are then studying. That means a different group from year to year; one time pneumonias and another time heart difficulties, and so on, but operating the hospital always as a subsidiary to the research side. I don't think the State psychopathic hospital should go that far. I think it should have the out-patient work and other things, but in the relative degrees of emphasis, it would make it clearer to the public that they serve different functions, if perhaps it was indicated a little more clearly that research with a long look ahead is a prominent part of the State job at its hospital and Institute, while the city's job is carrying on certain immediately needed practical operations, and in a sense doing only that. They would have a good deal in common and desirably so, and both of them I am sure would have an eye constantly on the look-

out. They would need to have some functional division of the field, in the development of the social service department, the out-patient department and the hospital service itself. I think it is going to require a little care to frame these two propositions in such a way that it will not only be true so far as it can be made to be true, but that it will obviously appear to be the case, namely, that, properly and desirably they are not alternatives; that both are needed; that they fill to a considerable extent different fields, and that so far as they exercise the same functions in common, they are together only the beginnings of a much larger system of psychopathic hospital provision for the city of New York.

THE NEED OF PSYCHOPATHIC DEPARTMENTS IN STATE HOSPITALS

BY JOHN R. ROSS, M. D.,
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As an aid in prevention and cure of mental diseases, psychopathic hospitals have an important place. In all localities where they have been established, they have proven their worth. This being the case, I believe the time has come, if the State hospitals are to function fully, when it is necessary to add to their equipment, psychopathic departments.

The idea of a psychopathic department is not a new one. In a paper published in 1912, entitled "The State Hospitals at the Parting of the Ways" Colonel Folks said among other things, "The natural leaders in all this extension work in the establishment of psychopathic hospitals and in their oversight; above all in the establishment and maintenance of clinics, in the development of after-care, in the study of local conditions affecting the development of insanity, and in the constant education of the community in regard to mental disease and its treatment, the natural leaders in all these lines are the State Hospital Commission and the superintendents and other officers of the State hospitals. Serious as are their responsibilities in the smooth and efficient operation of the State hospitals, I am firmly convinced that it is absolutely essential that they add thereto the after participation and direction of these newer movements. It is vital in my judgment to the right development of the State hospitals themselves. . . . . The work is going to be done. Clinics, dispensaries, after-care and education in mental hygiene are already here on a small scale and are coming rapidly on a large scale. If you do not lead, others will, others less qualified by experience, by intimate knowledge of the subject, less able to keep in touch with all the development from year to year in this particular field of medical science."

Again in 1917, in a memorandum submitted to the Hospital Development Commission by the Committee on Mental Hygiene of the State Charities Aid Association we find the following, "The establishment of psychopathic hospitals is an important part of any complete program for the care and cure of the insane. . . . . To cure patients as soon as possible is the most economical as well as the most scientific and humane way of treating them, and to take advantage of every reasonable possibility of cure is the only course for the State to pursue when it makes itself responsible for the life and welfare of its citizens. Much is done now but much is done too late. The most critical period of mental disease in acute cases comes in the beginning. This is the time when the patient is ordinarily most susceptible to remedial treatment."

Colonel Folks knew what he was talking about when he said others would lead if we did not. Right now, efforts are being made by individuals who are not competent, to direct the trend of thought among certain groups in New York City. In support of this statement I wish to quote a few paragraphs from a pamphlet that has been circulated in New York City and has come to my attention. It is full of inaccuracies, but the author poses as an authority. His criticism of present day methods is a follows.

"Our aim is to bring about a radical change in the present day treatment of the insane. Our institution is a new movement in which every community must become vitally concerned. Our main aim and object is the preservation and improvement of mental health, prevention of insanity, feeblemindedness, and mental deficiency.

Somehow it never materialized until now, and probably few realize, that there is no hospital anywhere today, such as we plan.

It is designed to change the ignorant and inhuman attitude toward the mental sufferers, to teach them mental hygiene, to relieve those nervous, mental and psychic strains which result in nervous or mental collapse. . . . . Moreover

the hospitals for the insane should become a vocational and hygienic centre. The lunatic asylum must lose its stigma, its depressing ominous atmosphere; and it must be changed into a hospital where the insane are treated and given a chance to be rehabilitated."

It is reasonable to suppose that the idea of a psychopathic hospital is good, for it is now 1922 and we are still talking about it. Progress has been made, but there is much to be done before we can claim to have made a real start in the prevention of mental disease.

Efforts so far seem to be directed almost wholly to the establishment of psychopathic hospitals in the large centers of population. This movement is praisworthy and deserving of support, but in the desire to place hospitals of this character in the metropolitan district, let us not forget that the rural communities have their difficulties and are entitled to the best in medical science as well as the cities. It is not possible nor is it necessary to establish psychopathic hospitals in every small city or town, but there should be a psychopathic hospital in every hospital district. I believe it is practicable to establish psychopathic hospitals as units of the State hospitals, designate them as psychopathic departments and advertise through the district that there is a place where advice and treatment can be obtained without being judicially committed to a hospital for the insane. The burden of informing the public would be an added duty of the superintendent. I am convinced that with proper and judicious propaganda the State hospitals could be made centers of instruction in mental hygiene.

It might be asked, "Are not the State hospitals already psychopathic hospitals?" Strictly speaking, they are, and they perform certain functions admirably, namely custodial care for those that are in need of it, but as curative institutions they are handicapped by overcrowding, and an insufficient number of physicians and trained employees. With a large admission rate, overcrowded wards, inability to properly classify and an insufficient number of physicians,

it is difficult to perform anything but routine work. Intensive treatment on any large scale is impossible.

We are encouraging patients to make voluntary application for admission to our hospitals. We state we want them in the early stages of their disease as it gives us a better opportunity to help them. Holding out this hope, it is unfair to accept them and expect them to work out their own salvation. It is unfair, after a more or less complete examination to transfer them to a chronic ward, where they cannot receive close individual attention. If we receive an individual as a voluntary patient, we are under a moral obligation to do every thing possible to hasten recovery, and we are lax in our duty if we are satisfied with anything less. Under present conditions we are unable to do full justice to the voluntary admissions and the recoverable cases; this being so, it is easy to see that little can be done to assist in the readjustment of the less favorable cases.

I am convinced if a psychopathic unit were established in each of the hospitals and properly manned, treatment of our patients would improve, and more real curative measures would be introduced.

To build new structures for these units now is not possible, but we should have it in mind as part of a future program. The proper manning of the department is more essential in the beginning than the building. We must develop a hospital within a hospital and demonstrate its value.

Excluding the hospitals in the metropolitan district it would be possible, at first, to combine the psychopathic unit with the reception service. In the metropolitan district separate units would be better because of the great number of admissions.

Psychopathic departments properly organized would mean a change in staff personnel, but I am confident this would be a benefit to the hospital as well as the community.

The following plan of organization, which would help make our hospitals curative instead of custodial institutions, may be outside the realm of attainment, but is set forth as an ideal to be worked for.

Size

The unit should have a capacity to care for 200 patients; 100 of each sex. It should never be crowded beyond its capacity.

Classification

All voluntary and recoverable cases should be received and kept on this ward. Voluntary cases should not be transferred so long as they remain voluntary patients. It might be well to have an understanding relative to the type of patient that should be accepted as a voluntary admission. In my opinion it is a mistake to accept as voluntary patients, any who do not offer good prognosis for recovery or at least a hope for a complete or partial readjustment. I feel little is gained in filling the hospital with voluntary chronic patients. I believe it would be wise to limit voluntary admissions to cases in which favorable results might be expected. Senile, arteriosclerotic and organic brain cases should not be received as voluntary patients, or if received in the course of routine admission, should be moved on to other wards at once. Disturbed patients, although the prognosis be favorable, should be kept apart from this unit; upon the subsidence of this symptom they should be promptly moved to the psychopathic department. During the stage of excitement these patients should be segregated so that their condition would not be a factor to retard convalesence in other patients. It might be possible to have a ward with proper hydrotherapeutic apparatus to care for the disturbed, as a section of the psychopathic unit.

Physicians

The number of physicians in this unit should be one to every twenty patients. I realize with conditions as they are, such a proposal sounds absurd, but as I am advancing a plan of things as they ought to be and not as they are, I dare to suggest this ratio. These physicians should be the pick of the institution; those who have shown particular ability

in dealing with questions of readjustment. Something more than the writing of ward notes and treating physical conditions is essential. The physicians in this department must be able to clear up the patients' difficulties. In other words we should concentrate in this unit the psychiatrists of the hospital. For the purpose of developing physicians two of the number assigned might be internes, but they too, should be selected because they show ability to become psychiatrists. With such a force I do not think it would be unreasonable to expect results.

Nursing

The nurses should all be graduates of the training school. They should be selected in the same manner as the physicians, because of particular fitness in meeting the needs of the mentally sick. The greater number should be female nurses with a sufficient number of men to care for any emergency that might arise. I would suggest a ratio of one to four or five.

Laboratory

There should be a laboratory, not for the purpose of making autopsies, but equipped to do the best and most modern clinical work. It should be used to its capacity in making diagnosis and governing treatment.

Therapeutics

Adequate provision should be made for occupational therapy, hydrotherapy, electrotherapy and any other kind of therapy that could be used in the rehabilitation or readjustment of the individual.

Field Workers

There should be one field worker to every fifty patients in this unit. They should investigate every case and obtain a complete and accurate history of the patient's life. They should aid also in spreading educational propaganda.

Out-Patient Work

This unit should take over all the outside activities of the institution; the clinics, after-care of patients, and education of the public.

Clinics

The clinics should be something more than a place to interview paroled patients. They should reach out and aid those who are in need of advice. In some of the upstate sections it might be necessary to establish traveling clinics. The whole district to its remotest parts should be covered occasionally. It is needless to say that attempts should be made to get the cooperation of local physicians.

Education

The public is not well informed about the State hospitals. Many people have a wrong impression. I have met some people, apparently intelligent, who believe once a patient has been committed to a State hospital it is next to impossible to have him released. A feeling prevails among some that patients are not well treated in these hospitals. Worse still is the idea that once admitted to a State hospital there is no hope for recovery. Relatives have told me, although it was a hardship to finance it, that they have sent the patient to a private hospital because they thought the patient would get better treatment. Finally when they are no longer able to pay the bills, the patient comes to the State hospital.

Private hospitals have their place in the general scheme and some of them are doing excellent work. However the State hospitals, even with their present limitations, compare very favorably with the private institutions and it is unfair to allow the impression to exist that proper care and treatment can not be obtained in the State hospitals.

I realize that my presentation of this subject has been crude, but I believe there is an idea in it, which if properly worked out, would place us more definitely in the curative class of institutions. This should be our aim.

STUDIES IN FOCAL INFECTION: ITS PRESENCE AND ELIMINATION IN THE FUNCTIONAL PSYCHOSES*

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As a part of a general plan of intensive study of the causes, symptoms, and methods of treatment of mental disorders, particularly of the functional psychoses, there has been carried out during the past year and a half at the New York State Psychiatric Institute under the director, Dr. George H. Kirby, a special investigation of focal infections. Such an investigation appeared particularly desirable because of the general interest in the problem stimulated by claims made by some investigators regarding the important role such infections played in the psychoses, and because of the striking results said to have been obtained by the removal of these infections.[1] With an approach free from prejudice and without preconceived ideas as to the possible results, the study was undertaken simply to acquire facts and to increase our knowledge of the relation of focal infections to the psychoses, with the expectation of applying such knowledge as might prove valuable for prevention and treatment.

Functional cases, as typical as possible, were selected for this study from the general admissions to the Manhattan State Hospital. The possibility of obtaining a satisfactory

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[1]Cotton, H. A. The Defective Delinquent and the Insane. Princeton Univ. Press, 1921.

history, an understanding of English by the patient, and an indication of a certain degree of cooperation determined the selection, as it was considered that more valuable data might be obtained from the investigation of such patients. At the outset it was determined that it would be more desirable to study intensively a small group of patients and observe the individual results rather than attempt to treat a very large number and determine the effects of such treatment by its apparent influence on the general hospital recovery rate or hospital population. Such recovery rates, admission rates, and numbers of hospital population change so from time to time and have so many determinants, often intangible ones, that it would seem extremely difficult to properly and satisfactorily evaluate the influence of any single procedure on them. The number of patients especially studied by us from the standpoint of focal infection totals 60 at the present time, 38 women and 22 men. We obtained a detailed family and personal history in all cases and a thorough psychological examination was carried out with frequent, often daily, notes of the progress of the case. A thorough physical examination was made including a special study of the endocrine status, and a complete gynecological examination, with particular reference to cervical infection. Such infection was diagnosed upon the basis of any acute inflammatory changes, accompanied by enlarged glands, ulcerated surfaces, suspicious discharges of pus, etc., or acute congestion throughout the tissues, accompanied by tenderness on bimanual palpation. Complete serological examinations were made on all the men, and blood Wassermann tests were done on the women. No cases were included in the group that were considered syphilitic. A four-hourly temperature record was kept as a routine for a week following admission, or longer if abnormality was shown. Bowel movements were recorded as a routine, and the urine was always examined. Each mouth was completely radiographed and oral diagnosis made, records being made of the condition found and the treatment indicated. The dental

radiography was much facilitated by the use of a film holder which insures the accurate duplication at a future time of any radiogram taken, and which also saves much time in the determination and setting of the proper angles. For the radiographic work, a U. S. Army Bedside X-ray Unit was used. The resident dentist performed all dental operations, while oral surgery, such as the removal of impacted molars, buccal resections, etc., under general anæsthesia was done by the visiting oral surgeon.

An oto-laryngological examination was made on each patient and tonsillectomies were performed when indicated. The criteria for infection in the tonsils were a history of tonsillar attacks, undue enlargement, exudation of cheese or pus and redness of fauces. Tonsillectomies on female patients, and, occasionally on male patients, were done under local anæsthesia; otherwise general anæsthesia was employed.

The diagnostic mental classification was discussed not only by the hospital staff but also at institute staff conferences with the director.

Before beginning this investigation of focal infection, it seemed desirable to reduce the study as nearly as possible to the terms of an experiment. Therefore, all the patients were divided into two groups as nearly identical as possible. All members of one group received operative treatment for foci of infection in teeth and tonsils, while members of the other group received no such treatment and consequently could be regarded as controls. It was believed that such a plan would better enable us to arrive at some evaluation of the influence of infection on the psychoses. It was realized that rarely, if ever, can one psychotic patient be considered a perfect control for another. It might be argued that there was ample control material in the patients of the past and present years who had never been treated from the viewpoint of focal infection. However, it was considered much more satisfactory to have such a control group made up of patients observed at the same time by the same physi-

cians and under the same living conditions and influences as the patients to be actively treated. The procedure followed, therefore, was to decide in regard to each patient, after the diagnostic classification had been made and the condition of infection determined, whether he was to be operated for such infection or not. An attempt was made to place in the two groups patients comparable as to sex, age, duration of psychosis, diagnosis, prognosis, and infective conditions of the teeth and tonsils. The present material is divided, therefore, into two groups, one to be referred to as the control group, and the other as the operative group.

As is seen in Table 1 there were in the control group 33 cases, 22 women and 11 men; the operated cases were 27 in number, 16 women and 11 men. Mental reaction types were classified as: controls, 15 dementia præcox, 15 manic-depressive, and 3 psychoneurotic cases; operated cases, 17 dementia præcox, 9 manic-depressive, 1 psychoneurotic. The ages varied from 15 to 57 years in the controls and from 16 to 54 in the operated group.

The duration of the psychoses before admission varied in the control group from 1 week to 4 years with the exception of 1 case (Case 21) with 15 years previous duration. In the operative group the previous duration varied from 1 week to 3 years with the exception of 4 cases, one with a previous duration of 5 years (Case 34), one of 7 years (Case 47), one of 8 years (Case 59), and one of 12 years (Case 51).

The shortest hospital residence in the control group was 6 weeks (Case 7), the longest 2 years and 9 months (Case 11). In the operated group the hospital residence varied from 3½ months (Case 37) to 2 years (Case 47) with the exception of one patient who had been in the hospital 5 years (Case 44).

Within each main group sub-groupings were made according to the character or location of focal infection. In each group there were 13 patients with infected teeth and tonsils. In the control group there were 15 patients with infected teeth only, and in the operated group there were

TABLE 1.—SUMMARY OF FUNCTIONAL PSYCHOSES WITH FOCAL INFECTION

FEMALE CONTROLS

No.	Name	Age	Prev. attacks	Date of adm.	Dur. before adm.	Diag.	Prognosis for imp. on adm.	Date teeth oper.	Date tonsil oper.	Course
1	R. Bn.	37	0	7-28-21	4 yrs.	D. p.	Fair	0	0	Imp., P. 12-28-21
2	M. By.	44	0	10-27-20	2 yrs. 6 mos.	D. p.	Poor	0	0	Unimp.
3	T. Cd.	29	0	10-12-20	2 wks.	D. p.	Poor	0	0	Unimp.
4	A. Dz.	46	2	1-19-22	3 mos.	M.-d.	Good	0	0	Imp.
5	M. Dn.	16	0	10-28-20	2 yrs. 5 mos.	D. p.	Poor	0	0	Unimp.
6	J. Gn.	37	0	12-20-21	2 yrs.	D. p.	Fair	0	0	Unimp.
7	R. Gn.	18	2	2-28-22	7 wks.	M.-d.	Good	0	0	Rec., P. 4-10-22
8	M. Hn.	41	3	9-24-21	1 wk.	M.-d.	Good	0	0	Imp.
9	M. Hr.	32	0	4-12-20	1 mo.	D. p.	Poor	0	0	Unimp.
10	J. Kt.	32	0	8-20-21	2 yrs. 8 mos.	D. p.	Fair	0	0	M. imp., P. 10-21-21
11	K. Ke.	47	2	5-16-19	2 mos.	M.-d.	Good	0	0	Rec., D. 2-17-22
12	M. Ky.	40	0	10-26-21	3 yrs.	D. p.	Poor	0	0	Unimp.
13	B. Mz.	37	2	6- 8-20	1 mo.	M.-d.	Good	0	0	Imp.
14	F. Mn.	32	1	10- 8-21	5 mos.	M.-d.	Good	0	0	Imp.
15	N. My.	54	1	10-25-21	2 mos.	M.-d.	Fair	0	0	Imp.
16	R. Ny.	19	1	11-13-21	3 mos.	M.-d.	Good	0	0	M. imp., D. 5-14-22
17	K. Rh.	19	0	1-31-21	3 yrs.	D. p.	Poor	0	0	Unimp.
18	A. Ws.	25	0	8-15-21	7 mos.	Psyn.	Fair	0	0	Imp., P. 10-30-21
19	E. Zn.	34	1	11- 9-20	1 mo.	D. p.	?	0	0	Unimp.
20	M. Hsn.	57	3	3-11-22	4 mos.	M.-d.	Good	0	0	Imp.
21	A. Gn.	43	0	12- 3-21	15 yrs.	Psyn.	Poor	0	0	Unimp.
22	M. Di.	27	0	12-12-19	3 yrs.	D. p.	Poor	0	0	Unimp.

ABBREVIATIONS: Prev., previous; adm., admission; dur., duration; diag., diagnosis; imp., improvement; oper., operated; D. p., dementia præcox; M.-d., manic-depressive; Psyn., psychoneurosis; unimp., unimproved; rec., recovered; M. imp., much improved; P., paroled; D., discharged.

MALE CONTROLS

No.	Name	Age	Prev. attacks	Date of adm.	Dur. before adm.	Diag.	Prognosis for imp. on adm.	Date teeth oper.	Date tonsil oper.	Course
23	F. Bo.	41	0	10-11-21	5 mos.	M.-d.	Good	0	0	Imp.
24	M. Gg.	21	0	1- 4-22	3 yrs.	D. p.	Poor	0	0	Imp., P. 4-12-22
25	M. Kn.	16	0	8- 2-21	6 mos.	M.-d.	Good	0	0	Rec., P. 11-3-21
26	S. Ly.	15	0	8-26-20	11 dys	D. p.	Fair	0	0	M. imp.
27	J. Ls.	34	3	10-14-21	2 mos.	Psyn.	Good	0	0	Rec., P. 2-18-22
28	W. Ml.	20	0	1- 7-22	2 mos.	M.-d.	Good	0	0	Rec., P. 5-5-22
29	N. Zn.	41	1	1-26-22	2 mos.	M.-d.	Good	0	0	Rec., P. 4-19-22
30	E. Cy.	28	0	2-28-22	1 yr. 3 mos.	M.-d.	Fair	0	0	Unimp.
31	E. Gi.	18	0	2-28-22	4 yrs.	D. p.	Poor	0	0	Unimp.
32	J. Wf.	17	0	2- 4-22	1 yr. 6 mos.	D. p.	Poor	0	0	Imp.
33	J. Qn.	29	0	2- 4-22	1 yr.	M.-d.	Fair	0	0	Unimp.

FEMALE OPERATIVES

34	E. Ar.	37	0	10-29-21	1 yr. 10 mos.	D. p.	Fair	2-7-22	1-25-22	Imp., P. 3-3-22
35	I. Be.	41	3	8-14-20	5 yrs. 8 mos.	D. p.	Poor	11-10-21	10-21-21	Unimp.
36	B. Cy.	40	0	6- 8-20	1 mo.	D. p.	Poor	11-18-25-21	10-21-21	Unimp.
37	M. Dcn.	18	0	1-24-22	1 wk.	M.-d.	Good	2-23-22	0	Rec., P. 5-10-22
38	M. Fn.	17	2	11-19-21	2 yrs.	M.-d.	Fair	2-22-22	0	Imp.
39	F. Gr.	21	0	11- 9-21	5 wks.	D. p.	Good	2-20; 3-3-22	2-25-22	Unimp.
40	M. Grn.	34	0	3- 1-21	2 wks.	D. p.	Poor	2-23-24-22	0	Unimp.
41	M. Hy.	40	3	10-18-21	2 mos.	M.-d.	Good	1-19-22	0	Rec.
42	E. Kg.	22	0	11-27-20	2 yrs.	D. p.	Poor	11-18-20-21	10-21-21	Unimp.
43	P. Ln.	20	2	10- 2-20	4 mos.	M.-d.	Good	4-12; 5-27-21	3-31-21	Rec., D. 12-4-21
44	E. My.	43	0	6-14-17	2 mos.	M.-d.	Poor	11-23-21; 2-15-22	10-21-21	Unimp.
45	A. Mx.	29	0	12-22-21	1 mo.	D. p.	Poor	2-15-22	0	Unimp.
46	M. Sl.	31	1	7- 3-20	1 yr. 6 mos.	D. p.	?	4-12; 6-29-21	4- 2-21	Unimp.
47	M. Ss.	25	0	4-13-20	7 yrs.	D. p.	Good	4-12-21; 2-15-23-22	3-31-21	M. imp., P. 5-10-22
48	E. Sh.	21	0	9-28-21	2 mos.	M.-d.	Good	3-23-22	0	Unimp.
49	M. My.	23	0	2-23-22	1 mo.	M.-d.	Fair	3- 3-22	0	Unimp.

MALE OPERATIVES

No.	Name	Age	Prev. attacks	Date of adm.	Dur. before adm.	Diag.	Prognosis for imp. on adm.	Date teeth oper.	Date tonsil oper.	Course
50	R. Hy.	24	0	5-14-21	6 wks.	D. p.	Poor	3-30-22	3-10-22	Unimp.
51	C. Cs.	28	0	4- 6-20	12 yrs.	D. p.	Poor	2-16-22	0	Unimp.
52	A. Dy.	23	0	7-20-20	2 mos.	D. p.	Poor	2-8-10-22	1-26-22	Unimp.
53	M. Gn.	30	1	4- 4-20	4 mos.	M.-d.	Good	2-23-22	2-24-22	Unimp.
54	T. Hn.	20	0	3-18-20	8 mos.	D. p.	Poor	2-16-22	0	Unimp.
55	D. Ng.	17	0	1-23-22	3 yrs.	D. p.	Poor	0	2-24-22	Unimp.
56	J. Nk.	16	0	9-29-21	6 wks.	D. p.	Poor	0	2-24-22	Imp., P. 4-10-22
57	I. Sn.	21	0	7-21-21	3 yrs.	D. p.	Poor	2-16-22	1-25-22	Imp., P. 6-6-22
58	H. Tk.	30	0	3- 1-21	13 mos.	D. p.	Poor	2-1-22-2-8-22	0	Imp., D. 2-25-22
59	J. Wl.	40	0	10-17-21	8 yrs.	Psyn.	Good	1-5-22-2-24-22	0	Unimp.
60	R. Ds.	54	3	1-31-22	4 mos.	M.-d.	Fair	3-30-22	3-10-22	Rec., P. 5-18-22

ABBREVIATIONS: Prev., previous; adm., admission; dur., duration; diag., diagnosis; imp., improvement; oper., operated; D. p., dementia præcox; M.-d., manic-depressive; Psyn., psychoneurosis; unimp., unimproved; rec., recovered; M. imp., much improved; P., paroled; D., discharged.

11 such patients. In the control group there were no patients with infected tonsils only, but three such cases occurred in the operated group. In five cases in the control group infection of neither the teeth nor tonsils could be demonstrated. In the whole control group of 33 patients there were judged to be 101 infected teeth. From the 27 patients in the operated group, 139 teeth were extracted.

The questions that most intimately concern us are: "What do these groups of cases show comparatively with respect to recovery, improvement, or unimprovement?" and secondly, "Has the removal of focal infections in teeth and tonsils brought about recovery or improvement in individual cases?"

TABLE 2.—RESULTS WITH AND WITHOUT OPERATION

	Dementia Præcox		Manic-Depressive	
	Controls	Operatives	Controls	Operatives
No. of cases	15	17	15	9
Recovered	..	..	5	4
Improved	5	5	8	1
Total benefited	5	5	13	5
Unimproved	10	12	2	4
Left hospital	3	5	6	3

The answer to the first question is indicated in Table 2 in which are tabulated the conditions as of June 1, 1922, of the dementia præcox and manic-depressive groups. The psychoneurotic cases are not tabulated because of the small number in this group, 4 patients. It may be said of them, however, that the one operated case is unimproved (Case 59), while of 3 control cases one is recovered (Case 27), one improved (Case 18) (these two having left the hospital) and one (Case 21) is unimproved.

The longest period of time that has elapsed since the removal of infections of teeth and tonsils in any one case is one year; the shortest period is two months. Patients that have left the hospital have had their conditions observed by a careful system of follow-up maintained by the hospital.

The table shows no recoveries in the dementia præcox group. It is probably unnecessary for us to say that in no

case of recovery was the expedient used of changing the classification from the dementia præcox to the manic-depressive group. The percentage of recovery in the manic-depressive operated group is 44 per cent as compared with 33 per cent in the control group. However, the percentage benefited by treatment is 55 per cent in the operated manic-depressive group while in the control group it is 86 per cent. There is a slighly lower percentage of improvement shown in the dementia præcox operated group than in the control group, that is, 29 per cent as compared with 33 per cent. *On the whole, then, the operated group appears to have received no more benefit than the control group.*

The second question as to the effect of removal of focal infections on the course and outcome of the psychoses in individual cases is a more difficult one and we do not feel that it can be answered unequivocally because of the many factors that enter into the recovery and improvement of psychotic patients. It had been recognized in the beginning of this study, however, that an attempt to determine if possible how much the removal of focal infections influenced the psychoses was the main purpose of the study, and that all available means should be utilized to aid in such a determination.

To this end, one of us (C. O. C.), after a diagnostic survey had been made for each case, recorded a definite opinion (in all cases but two) as to whether the prognosis was good, fair, or poor for recovery and improvement. Such an opinion was given irrespective of focal infection and usually before it was known to what degree such infection would be demonstrable. The two patients (Cases 46 and 19) in whom a prognosis was not given were both women, each with a previous attack with alleged recovery, but showing in their histories and psychotic reactions indications of a chronic deteriorating process. One was placed in the control group and the other had her teeth and tonsils removed. Each has shown no improvement during the subsequent year.

In determining the present conditions of the patients

reference was purposely not made to these previously recorded prognostic opinions. *A comparison of the present conditions with these prognoses shows now, however, that no recovery has taken place that was not prognosticated before any focal infection treatment was undertaken. We have no evidence on which to base a conclusion that the removal of focal infection has of itself brought about recovery.* For the manic-depressive operated cases now considered improved and unimproved the removal of focal infections has been followed by nothing to indicate a change in the prognoses previously made.

Among the improved dementia præcox cases are placed 3 men (Cases 56, 57 and 58) who have been paroled on the request of their relatives. For all of these the prognosis for improvement had been indicated as poor. Judging from their maintained delusional ideas, their conduct, and complete lack of insight, they might well be considered unimproved, but to avoid possible criticism for denying improvement in cases that had left the hospital, and being willing to give the operated group the benefit of the doubt, these cases are placed in the improved class. In none of the improved dementia præcox operated cases can we definitely relate an improvement to the operative procedures.

One patient (Case 39) who, judging from the history of her make-up, onset of psychosis, and perplexity state was given a good prognosis, has in spite of removal of infected tonsils and teeth passed into a deteriorated condition now looked upon as a dementia præcox reaction. A psychoneurotic man (Case 59) who had shown much improvement before the removal of several infected teeth developed, a month after this removal, a tremendously agitated, depressed, self-condemnatory suicidal state and has not yet regained the condition which existed prior to operation. We would hesitate, however, to attribute these reactions to the operative procedures, nor in fact do we feel justified in asserting that any patient has been made worse mentally by removal of teeth or tonsils. There have been no shock

reactions or untoward results except that one woman, having a severe and prolonged hemorrhage following tonsil removal was physically reduced and incapacitated for a number of weeks with no subsequent alteration in the mental picture. It was found later that she had a hemophilic son. Our experience has not indicated that the removal of tonsils in psychotic adults is a dangerous procedure, but at the same time we feel that this operation, or the extraction of a large number of teeth at one time, are methods that should be carried out only after a careful consideration of the facts indicating or contra-indicating their use.

In conjunction with the psychiatric and operative work previously discussed, comprehensive bacteriological investigation was undertaken, with a view to determining the bacterial species encountered in the various foci of infection. A word might be said with regard to the technique involved. There were comparatively few instances in which it could be said that the bacteriological cultures from the apices of extracted teeth were taken under rigidly aseptic conditions. As a rule the gums were dried, liberally swabbed with iodine or Berwick's solution and adrenalin was used with the novocaine in conductive anæsthesia in order to obtain a dry field. Teeth in the upper jaw were surgically removed in the manner described by Dr. Gardner of the Mayo Clinic, Rochester, Minnesota, and in general, bacteriological culture from anterior teeth in the upper jaw was more satisfactory from the standpoint of asepsis than cultures from the lower jaw. Teeth were extracted from the lower jaw in the usual manner, and only rarely could cultures be considered reliable because of contamination with saliva. Sterile swabs were used in transferring bacteria from the apices to broth and blood agar plates. The anærobic cultivation of bacteria in petri dishes as devised by us was used in addition to the ordinary ærobic method.[4] The streptococci were identified by means of Hol-

[4] Morse, S. and Kopeloff, N. A Simple Method for Anærobic Cultivation in Petri Dishes. Am. Jour. Public Health 12, No. 2, Feb., 1922, 119-121.

man's[5] classification and for the other bacteria Chester[6] was followed. Cultivation of the bacteria from enucleated tonsils was similarly carried out.

In Table 3 a summary of infection in the female and male controls is divided into four classes. The first includes patients with infected teeth and tonsils; the second includes those with infected teeth and negative tonsils; and the fourth includes those with negative teeth and tonsils. Considering the control patients as a whole, we find that of the 13 patients having infected teeth and tonsils, seven improved and six did not; and of the 15 patients having infection in teeth alone, nine improved and six did not. In other words there is practically no difference in these classes as far as influence on the course of the psychoses is concerned, which perhaps might constitute an argument against the probability of focal infection being the etiological factor in these psychoses. That is, one would expect less improvement in patients having more foci of infection than in those having fewer foci. But this expectation is not borne out by these cases.

In Table 4 it will be seen that under "teeth extracted" the "results" are enumerated as reliable, unreliable, or questionable. These refer to the conditions of asepsis at the time of operation as determining to what degree the bacteriological cultures could be relied upon as coming from the tooth apices alone. Considering the bacteriological findings in tonsillectomies, only the cocci found are of significance for the problem under consideration, consequently other bacteria found are not here listed.

Before discussing the bacteriological findings in these operative cases there are some other points of interest worth noting. Chief among these is the comparison between cases showing different focal infections and the course

5 Holman, W. L. The Classification of Streptococci. Jour. Med. Res. 34, No. 3 (N. S. 29, No. 3), July, 1916, 377-443.

6 Chester, F. D. Manual of Determinative Bacteriology. The MacMillan Co., 1901.

TABLE 3.—SUMMARY OF INFECTION

Female Controls

I. INFECTED TEETH AND INFECTED TONSILS

Name	Diag.	No. teeth infected	Condition of tonsils	Fractional gastric analysis Bacteria found	Prognosis		Course
					Imp.	Rec.	
M. By.	D. p.	3	Infected	Staph. aur. S. mitis. yeast.	Poor	Poor	Unimp.
T. Cd.	D. p.	7	Infected	Staph. aur. S. mitis, S. virid., etc.	Poor	Poor	Unimp.
M. Dn.	D. p.	3 Impacted 3	Infected	Staph. aur. yeast, Bact. lacticum, etc.	Poor	Poor	Unimp.
M. Hr.	D. p.	3	Infected	Staph. aur. yeast, Bact. lacticum.	Poor	Poor	Unimp.
M. Ky.	D. p.	5	Infected	.....	Poor	Poor	Unimp.
B. Mz.	M.-d.	2	Infected	Sterile.	Good	Good ?	Imp.
F. Mn.	M.-d.	4	Infected	.....	Good	Good	Imp.
E. Zn.	M.-d.	7	Infected	Bact. lacticum, yeast, B. cloacæ, Bact. mycoides, B. vulgaris.	?	?	Unimp.

II. INFECTED TEETH AND NEGATIVE TONSILS

A. Dz.	M.-d.	4	Negative	.....	Good	Good	Imp.
J. Gn.	D. p.	2	Negative	.....	Fair	Poor	Unimp.
M. Hn.	M.-d.	3	Negative	.....	Good	Good	Imp.
J. Kt.	D. p.	9	Negative	Staph. aur. yeast, Bact. lacticum.	Fair	Poor	M. imp.
N. My.	M.-d.	1+?	Negative	.....	Fair	Fair	Imp.
R. Ny.	M.-d.	3	Negative	.....	Good	?	M. imp.
K. Rh.	D. p.	1	Negative	.....	Poor	Poor	Unimp.
M. Di.	D. p.	4	Negative?	.....	Poor	Poor	Unimp.
A. Gn.	Psyn.	8	Negative?	.....	Poor	Poor	Unimp.
M. Hsn.	M.-d.	4	Negative	.....	Good	Good	Imp.
K. Ke.	M.-d.	3	Negative?	.....	Good	Good	Rec.
A. Ws.	Psyn.	2	Negative?	.....	Fair	Fair	Imp.

Abbreviations: Staph., Staphylococcus; S., Streptococcus; virid., viridans; ignav., ignavus; pyog., pyogenes; alb., albus; cit., citreus; aur., aureus. Other abbreviations identical with those in Table 1.

IV. NEGATIVE TEETH AND TONSILS

Name	Diag.	No. teeth infected	Condition of tonsils	Fractional gastric analysis Bacteria found	Prognosis Imp.	Prognosis Rec.	Course
R. Bn.	D. p.	0	Negative	Staph. aur. yeast, etc.	Fair	Poor	Imp.
R. Gn.	M.-d.	0	Removed	.....	Good	Good	Rec.

MALE CONTROLS

I. INFECTED TEETH AND TONSILS

M. Gg.	D. p.	4	Infected	.....	Poor	Poor	Imp.
S. Ly.	D. p.	2	Infected	Staph. aur. yeast, etc.	Fair	Poor	M. imp.
W. Ml.	M.-d.	3	Infected	.....	Good	Good	Rec.
N. Zn.	M.-d.	1	Infected	.....	Good	Good	Rec.
J. Qn.	M.-d.	7	Infected ?	.....	Good	Fair	Unimp.

II. INFECTED TEETH AND NEGATIVE TONSILS

J. Ls.	Psyn.	1	Negative	Staph. aur. yeast, etc.	Good	?	Rec.
E. Cy.	M.-d.	3	Negative	.....	Fair	Fair	Unimp.
E. Gi.	D. p.	4 Impacted 4	Negative	.....	Poor	Poor	Unimp.

IV. NEGATIVE TEETH AND TONSILS

J. Wf.	D. p.	0	Negative	.....	Fair	Poor	Imp.
F. Bo.	M.-d.	0	Negative	Staph. aur. yeast, etc.	Good	Good	Imp.
M. Kn.	M.-d.	0	Negative	Staph. aur. yeast, S. virid.	Good	?	Rec.

ABBREVIATIONS: Staph., Staphylococcus; S., Streptococcus; virid., viridans; ignav., ignavus; pyog., pyogenes; alb., albus; cit., citreus; aur., aureus. Other abbreviations identical with those in Table 1.

TABLE 4.—SUMMARY OF BACTERIOLOGICAL FINDINGS

FEMALE OPERATIVE

I. INFECTED TEETH AND TONSILS

Name	Diag.	Teeth extracted			Tonsillectomy	Fractional gastric analysis	Prognosis		Course of psychoses
		No.	Bacteria found	Results	Cocci found	Bacteria found	Imp.	Rec.	
E. Ar. ..	D. p.	30	Staph. aur.	Unreliable	Staph. aur.	.....	Fair	Poor	Imp.
I Be. ...	D. p.	3	S. mitis.	Reliable	Do.	S. ignav., Staph. alb., cit., Bact. lacticum, aquatilis, etc. Yeast.	Poor	Poor	Unimp.
B. Cy. ..	D. p.	10	S. virid. Staph. aur.	Questionable	Do.	S. fecalis, ignav., Staph. alb., Bact. acidi-lacti, ambiguum, etc. Yeast	Poor	Poor	Unimp.
F. Gr. ..	D. p.	7	S. virid.	Reliable	Do. S virid.	.....	Good	Good	Unimp.
E. Kg. ..	D. p.	11	S. pyog. S. virid. Staph. aur.	Unreliable	S. pyog. S. mitis. Staph. aur.	Staph. alb., S. salivarius, Bact. lacticum. Yeast.	Poor	Poor	Unimp.
P. Ln. ..	M.-d.	6	S. mitis. S. virid. Staph. aur.	Unreliable	S. equinus. Staph. aur.	Staph. aur., Bact. lacticum, Bact. Bossonis desidiosum. Yeast.	Good	Good	Rec.
E. McCy.	M.-d.	5	Sterile. Staph. aur.	Reliable Unreliable	Staph. aur. S. virid.	Staph. aur., Bact. lacticum, B. vulgaris, mycoides, etc. Yeast.	Poor	Poor	Unimp.
M. Sl. ..	D. p.	4	S. virid. Staph. aur. S. ignav.	Unreliable	S. fecalis S. salivarius Staph. aur.	Staph. alb., S. fecalis, mitis. Bact. acidi-lacti, yeast, etc.	?	?	Unimp.
M. Ss....	D. p.	4	Staph. aur.	Unreliable	S. pyog. S. salivarius Staph. aur.	Staph. aur., S. virid., Bact. lacticum. Yeast.	Good	Poor	Imp.

Abbreviations as in Table 3.

II. INFECTED TEETH AND NEGATIVE TONSILS

Name	Diag.	Teeth extracted			Tonsillectomy	Fractional gastric analysis	Prognosis		Course of psychoses
		No.	Bacteria found	Results	Cocci found	Bacteria found	Imp.	Rec.	
M. Dic..	M.-d.	3	S. virid.	Reliable ?	.....	.....	Good	Good	Rec.
M. Fn...	M.-d.	1	.....	.....	.....	.....	Fair	Poor	Imp.
M. Grn..	D. p.	7	Staph. aur.	Questionable	.....	.....	Poor	Poor	Unimp.
M. Hy...	M.-d.	2	Sterile	Reliable	.....	.....	Good	Good	Rec.
A. Mx...	D. p.	8	S. fecalis S. salivarius Staph. aur.	Questionable	.....	.....	Poor	Poor	Unimp.
E. Sh....	M.-d.	1	.....	.....	.....	.....	Good ?	Poor	Unimp.
M. My...	M.-d.	3	Staph. aur.	Reliable	.....	.....	Fair	Fair	Unimp.

MALE OPERATIVE

I. INFECTED TEETH AND TONSILS

A. Dy...	D. p.	9	Staph. aur.	Questionable	Staph. aur. S. pyog.	Staph. aur., S. virid., yeast, etc.	Poor	Poor	Unimp.
R. Ds...	M.-d.	5	Staph. aur.	Questionable	Staph. aur. etc.	.....	Fair	Fair	Rec.
R. Hy...	D. p.	4	Staph. aur. S. virid.	Unreliable	S. virid.	.....	Poor	Poor	Unimp.
I. Sn....	D. p.	2	Sterile. Staph. aur.	Reliable	Staph. aur. S. virid.	Staph. aur., S. fecalis.	Poor	Poor	Imp.

Abbreviations as in Table 3.

II. INFECTED TEETH AND NEGATIVE TONSILS

Name	Diag.	Teeth extracted			Tonsillectomy	Fractional gastric analysis	Prognosis		Course of psychoses
		No.	Bacteria found	Results	Cocci found	Bacteria found	Imp.	Rec.	
C. Cs....	D. p.	6	S. salivarius	.....	.....	.....	Poor	Poor	Unimp.
T. Hn...	D. p.	3	Sterile.	Reliable	.....	Staph. aur., S. virid., yeast.	Poor	Poor	Unimp.
H. Tk...	D. p.	4	Staph. aur. S. pyog. S. virid.	Reliable	.....	.....	Poor	Poor	Imp.
J. Wl....	Psyn.	2	.....	.....	.....	Staph. aur., yeast.	Good	?	Unimp.

III. NEGATIVE TEETH AND INFECTED TONSILS

M. Gn. .	M.-d.	..	.....	.....	.....	Staph. aur.	Good	Good	Unimp.
D. Ng. ..	D. p.	..	.....	.....	Staph. aur.	.....	Poor	Poor	Unimp.
J. Nk...	D. p	..	.....	.....	S. virid.	.....	Poor	Poor	Imp.

Abbreviations as in Table 3.

of the psychoses after operation. Again we find practically no difference with regard to improvement between patients having infected teeth and tonsils and those having only infected teeth. In the former category four patients improved and nine did not, while in the latter class three improved and seven did not. The percentage of improvement is 44 per cent in the first instance and 43 per cent in the second. This confirms the statement previously made in this connection with regard to controls, that the multiplicity of foci of infection had little bearing on the actual course of these psychoses.

Impacted molars are considered by some to be of great importance in the general problem in the relations of focal infection to the functional psychoses. There are only 3 patients in this series, E. Kg. (Case 42), P. Ln. (Case 43), A. Dy. (Case 52), who had impacted molars. However, the removal of impacted molars had little effect in these cases, since E. Kg. and A. Dy. remained unimproved and P. Ln. had practically recovered before the operation took place. Again it appears to be of little importance whether many or few infected teeth are removed. It is true, however, that the patient, E. Ar. (Case 34) having the greatest number of teeth removed, 30, improved. This improvement was well under way before the teeth were removed. And those patients having 10 (B. Cy.) (Case 36), 11 (E. Kg.) (Case 42), 7 (F. Gr.) (Case 39), 7 (M. Gn.) (Case 40), 8 (A. Mx.) (Case 45), and 9 (A. Dy.) (Case 52) teeth extracted remained unimproved, while those having 3 and 4 teeth removed (M. Ss.) (Case 47), (M. Den.) (Case 37), (M. Hy.) (Case 41) did improve. However, no correlations could validly be deduced from such data with regard to any quantitative relationship between the amount of infection and recovery. Obviously, other factors may be of greater significance.

Turning now to the bacteriological results, it will be seen that in only nine instances could the cultures from teeth be considered perfectly reliable, and in three of these in-

stances the teeth proved to be sterile (Cases 44, 49 and 54). Such findings tend to confirm the observation made by Berwick[7] that 10 per cent of teeth "showing radiographic changes" may be found sterile when extracted under the most rigidly aseptic surgical conditions. Of course such sterility of removed teeth does not mean that the teeth have never been infected. However, it indicates the difficulty of determining the true presence of dental infection and the possibility that teeth showing radiographic change suggesting infection may not necessarily be infected. In the 3 cases mentioned (Cases 42, 43 and 52), impacted molars were removed under general anæsthesia; and these teeth did not show radiographic evidence of infection nor was there gross evidence of infection after they were removed. Because of the impossibility of avoiding contamination during this rather difficult operative procedure, it was considered that the cultural results obtained from them were quite unreliable for determining the actual presence of infection of the teeth before removal.

From the excised tonsils, cultures were made from the depths after searing the surfaces, and the organisms were completely typed. In four instances hemolytic streptococci were grown and in seven instances the non-hemolytic forms were found. In 13 cases staphlococci were isolated. These organisms are known to be frequently demonstrable in the mouths of apparently normal persons and their significance for the health of such persons or of psychotic patients is considered to be quite indefinite.

It has been claimed[1] that the stomach may be demonstrated to be a focus of infection by means of the Rehfuss fractional method of gastric analysis. This conclusion has been based upon the finding of streptococci or colon bacilli in the stomach contents of psychotic patients, particularly in cases with low acidity as determined by a single analysis.

7 Berwick, C. C. The Bacteriology of Peridental Tissues Radiographically Suggesting Infection. Jour. Inf. Dis. 29, No. 5, Nov., 1921, 537-543.

1 Cotton, H. A. Loc. cit.

It has been asserted that in practically all of the cases following vaccine treatment, the gastric acidity became normal and cultures from the stomach contents were sterile.

In our investigation of this problem we have shown that a single analysis is not adequate in establishing the functional activity of the stomach since repeated analyses from day to day yield different curves of gastric acidity.[8] Furthermore, by using three Rehfuss tubes inserted at different levels in the same patient it was shown that the simultaneous aspiration of 10 c. c. fractions gave different acidities from each, thus indicating error in the interpretation of results obtained by this method.[9] The necessity for determining the number of bacteria present in the stomach contents seemed fully as great as the identification of species. Therefore, bacterial counts were made. These showed that there was no correlation between the number found and the gastric acidity.[10] In other words, high bacterial numbers were found as frequently with high acidity as with low acidity. It was found that the bacterial content of the stomach was determined by the swallowing of saliva. By using a dental suction pump to reduce the amount of saliva swallowed, the bacteria in the stomach were decreased in repeated instances to a negligible number, for example, from 48,000 per c. c. to 32 per c. c.[11] It is significant that throughout this investigation of gastric infection no differences in results could be discerned between 10 mentally normal subjects and 23 patients with functional psychoses. The conclusion arrived at in these studies, which have been reported in detail elsewhere was that the Rehfuss fractional

8 Kopeloff, N. Individual Variation as Influencing the Rehfuss Fractional Method of Gastric Analysis. Jour. Am. Med. Assoc. 78, No. 6, Feb. 11, 1922, 404-406.

9 Kopeloff, N. Variations in Aliquot Fractions of Gastric Contents. Arch. Int. Med. 30, No. 1, July 15, 1922, 118-130.

11 Kopeloff, N. Is the Stomach a Focus of Infection? Am. Jour. Med. Rehfuss Method. Jour. Inf. Dis. 30, No. 6, June, 1922, 613-622.

11 Kopeloff, N. Is the Stomach a Focus of Infection. Am. Jour. Med. Sci., 1922.

method of gastric analysis could not be relied upon to demonstrate infection in the stomach.[12]

With respect to intestinal infection it may be stated that abdominal surgery has not been attempted on any of our patients since such treatment has not been indicated. Chronic constipation, which is regarded by some investigators as one of the cardinal indications for abdominal surgery, has been relieved at our institution by means of milk fermented by *Bacillus acidophilus* reinforced with lactose.[13]

Evidence of infection of the cervix was found in 4 cases, all of whom improved. It may be noted that three of these were in the control group (Cases 8, 14 and 20) and one in the operative group (Case 41).

Recently there has appeared in the literature an interesting observation with regard to focal infection, by Bumpus and Meisser[14] who state that in cases of pyelonephritis "following the extraction of the suspected foci an acute exacerbation of the urinary symptoms usually occurred accompanied by chills of more or less severity, and a rapid rise of temperature. We have regarded such reactions as clinical manifestations of the specificity of the bacteria released from the removed focus and believe that such increase in the severity of the disease should be considered favorably and an indication that the right focus has been eliminated." This suggested an examination of the temperature records of the patients who had undergone operation for the elimination of the foci of infection. As might be expected, the temperatures following operations under

12 Kopeloff, N. Studies in the Rehfuss Fractional Method of Gastric Analysis Applied to the Psychoses. N. Y. State Hospital Quarterly 7, No. 3, May, 1922, 326-416.

13 Kopeloff, N. and Cheney, C. O. Therapeutic Effect of *Bacillus* Acidophilus Milk and Lactose. Proc. Soc. Exp. Bio. Med., May, 1922, and Jour. Am. Med. Assoc. 79, No. 8, Aug. 19, 1922, 609-611.

14 Bumpus, H. C. and Meisser, J. G. Foci of Infection in Cases of Pyelonephritis, Study II. Jour. Am. Med. Assoc. 77, No. 19, Nov. 5, 1921, 1475-1478.

general anæsthesia were slightly higher than those under local anæsthesia. However, in no case did the temperature following operation exceed 100.8° F.

There is little evidence to indicate anything more than the most gross relationship between particular species of bacteria and foci which have been considered; and little to suggest that the bacteria found are in any way causally related to the psychoses.

We have attempted to present the facts as observed in a series of functional psychoses with special reference to the presence and absence of focal infection. Owing to the limitations of the data under consideration, our interpretation can be but tentative and subject to revision should further facts require it. Finally, it is only through the generous assistance of our colleagues that we have been enabled to conduct this research with the unified specialized effort that it requires.

Acknowledgment

It is a privilege to express our indebtedness to the following:

Dr. G. H. Kirby, director; and the staff of the Psychiatric Institute, particularly Dr. L. E. Hinsie in charge of the male service, and Dr. V. C. Branham in charge of the female service, assisted by Miss A. Feeney, charge nurse.

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We are further indebted to Dr. M. B. Heyman, superintendent, and the staff of the Manhattan State Hospital, especially Dr. I. Sperber, resident dentist, Dr. M. MacLachlan and Mr. E. K. Hill, photographer for their generous assistance.

Summary

The conclusions resulting from this study of the relation of focal infections to functional psychoses may be summarized as follows:

1. The removal of infected teeth and tonsils from 27 cases showing manic-depressive, dementia præcox, and psychoneurotic reactions has been followed by no more mental benefit than was shown by a comparable group of 33 patients from whom such supposed foci of infection were not removed. There were no recoveries or distinct improvements other than those prognosticated irrespective of focal infection.

2. The Rehfuss method of fractional gastric analysis is not to be relied upon as a means for determining gastric infection. The bacteria found in the stomach contents by this method may be derived for the greatest part or entirely from the swallowed saliva.

These studies are being continued, not only for the purpose of obtaining further facts regarding focal infection in the psychoses, but as a part of a general plan to afford psychotic patients all available opportunities for benefit.

OUTCOME OF 1,000 CASES PAROLED FROM THE MIDDLETOWN STATE HOMEOPATHIC HOSPITAL

BY MAURICE C. ASHLEY, M. D.,
SUPERINTENDENT

The tables which follow represent a brief statistical study of 1,000 cases paroled from this hospital during the past ten years. As the parole period up to three years ago covered only a period of from one to six months the data are not as complete as might be desired.

Table 1, as it stands, speaks for itself. We have listed the 1,000 cases by psychoses, showing how they were discharged—how many were returned from parole, and how many are on parole at present, exclusive of re-paroles and paroles of re-admissions. This chart also includes the 18 who died while on parole and were discharged under one of the various headings, recovered, much improved, improved, unimproved, and therefore, this total 18, is excluded from the grand total. It is interesting to note—but probably not unexpected—that the manic-depressives, dementia præcoxes and alcoholics lead in the total number paroled; the manic-depressives and alcoholics lead in the largest number of recoveries; and the dementia præcoxes and seniles lead in the largest number of returns.

Table 2, deals with the economic condition of those who left the institution. Under the heading of "self-supporting" we have listed those who were able not only to return to positions of responsiblity equal to that prior to their illness but who were also able to do as competent work as formerly, whether in the business world or in the home. Under "partly self-supporting" are those who worked irregularly or incompetently owing to their inability to adjust themselves mentally to their responsibilities. The "entirely dependent" are the men and women who were not only incapable of work because of their mental condition but also in need of constant care and supervision. Fourteen

of this list were unable to do anything owing to grave physical illness rather than mental incapacity. Of the paroles, ten are listed as "unascertained" because at the date of securing the data these patients had not been visited and little was known of their social condition.

Under "social conflicts" are included friction with the family, community or employers of such nature as to be called to the attention of the hospital authorities by the patient, the family, the neighbors or the authorities; maladjustment resulting in the arrest of twelve patients for vagrancy, assault and battery, forgery, swindlery or profiteering; extreme poverty; alcoholism; severe physical illness; desertions by wife or husband; disappearance of patients; and immorality (embracing illegitimacy)—in other words, the anti-social acts either resulting from or conducive to further mental trouble. To be sure, such social conflicts are found among normal people, but a careful scrutiny of these particular cases gave convincing evidence of the relationship between the patient's mental condition and his mode of living. It is seen that almost 25 per cent of the entire number have had difficulties of some kind which prevented them from making a normal adjustment. So far as we know the number of marriages among the discharged cases is small. The tabulation of those to whom children were born may not be considered accurate perhaps, for such information has never been considered of such paramount importance as to be reported to the hospital authorities. Under this heading, however, were included the three patients who bore illegitimate children. The number of suicides is larger than might have been expected considering that no hospital paroles patients who might be suspected of suicidal tendencies, so taking this into consideration, we have reason to believe that this one per cent is high. However, we are apt to hear of such happenings in the community while other events of an anti-social nature pass unremarked.

Table 4, contains all the available data on the insti-

tutional life of the patients following their residence at Middletown. The number of re-admissions and returns from parole show a mal-adjustment of almost a third of all who went out on parole. This seems rather high and raises two questions: First, whether patients are paroled too soon or whether longer treatment would have made any difference. Certain social factors contributing to the patient's first breakdown may be eliminated by the time the patient is paroled, yet it is only too true that it seems to take less to cause the second "break." It may be noted here that of the number who returned from parole our records show that none was entirely self-supporting—only a few partly self-supporting and the majority was entirely dependent and almost one-fourth had some social difficulty as might well be expected; second, whether on the other hand if too long a residence in the hospital does not have something to do with the patient's return and readmission. Too often the patient becomes so institutionalized that he is practically unfit for contact with life outside an institution. Perhaps intensive occupational therapy may prevent this institutionalizing, but it is too soon to see such results. The admissions to other institutions show a certain maladjustment which resulted in the need of care in the "Homes" of various kinds. Nevertheless, over 57 per cent of the 1,000 cases excluding those still on parole, have managed to live outside an institution, and apparently got along nicely. On this table also it may be noted that only 40 cases are unascertained as we learned that the six, of whom we know nothing else in the two preceding tables, were returned to institutions. Hence the difference between this and the "unascertained" of the other charts.

This study after all is but a beginning but it may be considered sufficient to give us some insight into what happens to the patients after they leave the care of the State —for it does tell us a little of the struggle so many have in adjusting themselves once again in the community.

Table 1. Outcome of 1000 Cases Paroled from the Middletown State Homeopathic Hospital

Psychoses	Total Paroled			Discharged													Returned to Hospital from Parole			Still on Parole			Died on Parole		
				Recovered			Much Improved			Improved			Unimproved													
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	
Traumatic	1	....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Senile	8	23	31	....	....	....	1	1	2	2	5	7	2	3	5	3	13	16	....	1	1	1	....	1	
With cerebral arteriosclerosis	13	11	24	5	2	7	....	1	1	1	1	2	4	4	8	1	2	3	2	1	3	1	2	3	
General paralysis	9	3	12	....	....	....	....	....	....	4	1	5	3	1	4	2	1	3	....	....	....	2	1	3	
With cerebral syphilis	....	2	2	....	1	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	
With Huntington's chorea	1	2	3	....	....	....	....	....	....	....	....	....	1	....	1	....	2	2	....	....	....	....	....	....	
With other brain or nervous diseases	....	3	3	....	1	1	....	1	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	
Alcoholic	66	14	80	45	7	52	....	1	1	4	2	6	....	2	2	13	1	14	4	1	5	3	1	4	
Due to drugs and other exogenous toxins	1	3	4	1	2	3	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	
With other somatic diseases	10	21	31	8	18	26	....	....	....	1	2	3	1	....	1	....	1	1	....	....	....	....	....	....	
Manic-depressive	118	181	299	83	121	204	7	14	21	12	28	40	6	4	10	4	4	8	6	10	16	2	1	3	
Involution melancholia	13	63	76	8	28	36	1	7	8	2	8	10	2	7	9	....	8	8	....	5	5	....	....	....	
Dementia præcox	76	131	207	15	29	44	13	11	24	21	29	50	6	14	20	14	35	49	7	13	20	1	1	2	
Paranoia or paranoic conditions	18	47	65	6	6	12	2	8	10	4	15	19	3	6	9	....	6	6	3	6	9	....	....	....	
Epileptic psychoses	5	7	12	1	1	2	....	....	....	2	1	3	1	1	2	....	2	2	1	2	3	....	....	....	
Psychoneuroses and neuroses	18	34	52	10	18	28	2	1	3	3	11	14	1	2	3	1	....	1	1	2	3	....	....	....	
With psychopathic personality	4	35	39	2	19	21	....	3	3	1	5	6	....	1	1	....	5	5	1	2	3	....	1	1	
With mental deficiency	19	13	32	12	3	15	1	....	1	1	3	4	1	....	1	1	5	6	3	2	5	....	1	1	
Undiagnosed psychoses	9	12	21	5	7	12	....	....	....	1	3	4	....	1	1	1	....	1	2	1	3	....	....	....	
Without psychoses	3	3	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Total	392	608	1000	202	263	465	27	48	75	59	115	174	31	47	78	40	86	126	30	46	76	10	8	18	

Table 2. Subsequent Economic Condition of Discharged Cases

Condition on discharge	Number discharged			Self-supporting			Partly self-supporting			Entirely dependent			Unascertained		
	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.
Recovered	202	263	465	130	147	277	40	84	124	18	21	39	14	11	25
Much improved	27	48	75	11	16	27	9	25	34	6	6	12	1	1	2
Improved	59	115	174	16	17	33	21	41	62	16	51	67	6	6	12
Unimproved	31	47	78	4	2	6	4	9	13	18	34	52	5	2	7
Not insane	3	3	6	1	2	3	..	..	..	2	1	3	..	..	..
Total	322	476	798	162	184	346	74	159	233	60	113	173	26	20	46
Still on parole	30	46	76	12	14	26	6	16	22	7	11	18	5	5	10
Returns from parole	40	86	126	..	..	..	2	15	17	36	67	103	2	4	6
Grand total	392	608	1,000	174	198	372	82	190	272	103	191	294	33	29	62

Table 3. Subsequent Social History of Discharged Cases

Condition on discharge	Serious social conflicts			Married			Had children			Committed suicide			No difficulties			Unascertained		
	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.
Recovered	38	57	95	2	9	11	3	15	18	1	2	3	149	193	342	14	11	25
Much improved ..	6	5	11	2	..	2	..	2	2	..	..	..	20	42	62	1	1	2
Improved	12	42	54	..	2	2	..	7	7	..	1	1	41	66	107	6	6	12
Unimproved	7	12	19	..	..	..	..	..	..	3	2	5	16	31	47	5	2	7
Not insane	2	1	3	..	..	..	..	..	..	..	..	..	1	2	3	..	..	..
Total	65	117	182	4	11	15	3	24	27	4	5	9	227	334	561	26	20	46
Still on parole....	6	17	23	..	..	..	..	..	..	..	..	..	19	24	43	5	5	10
Returns from parole	15	15	30	..	..	..	..	2	2	..	..	..	23	67	90	2	4	6
Grand total...	86	149	235	*4	*11	*15	*3	*26	*29	4	5	9	269	425	694	33	29	62

* Not included in grand total.

Table 4. Subsequent Institution Life of Discharged Cases

Condition on discharge	Readmitted to hospitals for mental disease			Admitted to other institutions			Living continuously outside an institution			Died			Unascertained		
	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.	M.	W.	T.
Recovered	43	49	92	4	2	6	130	199	329	11	4	15	14	9	23
Much improved	4	12	16	..	..	..	22	35	57	..	1	1	1	..	1
Improved	15	30	45	..	1	1	37	73	110	2	5	7	5	6	11
Unimproved	12	21	33	..	..	..	14	22	36	1	3	4	4	1	5
Not insane	1	1	2	..	..	..	1	2	3	1	..	1	..	..	..
Total	75	113	188	4	3	7	204	331	535	15	13	28	24	16	40
Still on parole	..	..	..	..	..	..	30	46	76	..	..	..	..	..	..
Returns from parole	40	86	126	..	..	..	..	..	..	..	..	..	..	..	..
Grand total	115	199	314	4	3	7	234	377	611	15	13	28	24	16	40

ALCOHOLIC PSYCHOSES BEFORE AND AFTER PROHIBITION

BY HORATIO M. POLLOCK, PH. D.,
STATISTICIAN AND EDITOR, NEW YORK STATE HOSPITAL COMMISSION

The only nation-wide information concerning alcoholic psychoses among admissions to institutions for mental disease available prior to 1919 is that contained in the Federal Census report on the insane in hospitals in 1910. On the schedules that were filled out for admissions during that year, the question was asked whether the patient was suffering from alcoholic psychosis. The term "alcoholic psychosis" was defined in the instructions for filling out the schedules as follows: "By 'alcoholic psychosis' is meant one of the mental diseases which, by their characteristic symptoms, are known to be the direct result of alcoholic intemperance. Cases of mental disease in which alcoholic intemperance is only one of the etiological factors and cases merely associated with alcoholic intemperance should not be reported under alcoholic psychosis."

Of the 60,769 patients with mental disease admitted to institutions in 1910, 6,122, or 10.1 per cent, were reported to be cases of alcoholic psychosis. The annual rate of admission of alcoholic cases was 6.7 per 100,000 of the general population. Considerable variation in rates was found in the several census divisions.

Table 1. Alcoholic Cases Among Admissions to Institutions for Mental Disease in the Several Census Divisions, 1910

Division of United States	Per Cent of Total Admitted	Rate per 100,000 of Population
New England	12.9	13.7
Middle Atlantic	11.0	8.4
East North Central	10.0	7.2
West North Central	7.8	5.0
South Atlantic	8.0	4.4
East South Central	7.3	3.2
West South Central	8.1	2.7
Mountain	13.9	8.5
Pacific	12.7	10.5
Total	10.1	6.7

It was found by this census that patients with alcoholic psychoses constituted 12.4 per cent of admissions from urban districts and 6.4 per cent from rural districts. The rate per 100,000 of population in urban communities was 10.7 and in rural, 2.6.

Of the 34,116 males admitted in 1910 to hospitals for mental disease, 5,220, or 15.3 per cent, had alcoholic psychoses. Of the 26,653 females admitted, 902, or 3.4 per cent, were diagnosed as alcoholic. The rates per 100,000 population of same sex were 11.0 and 2.0 respectively.

The figures above cited for the Middle Atlantic Division correspond closely with those compiled by the statistical bureau of the New York State Hospital Commission for the year 1910.

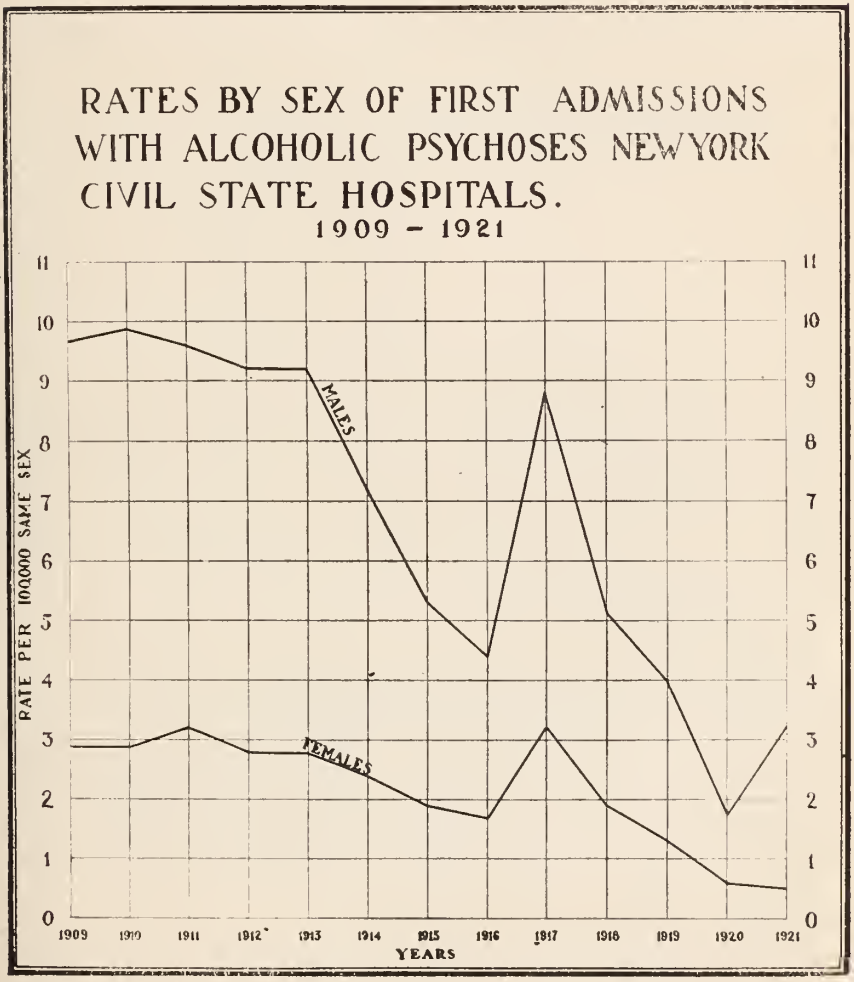
In gathering data concerning admissions, the latter bureau separates first admissions from readmissions, as it is believed that the rate of first admissions constitutes a better measure of the incidence of mental disease. The yearly record of first admissions with alcoholic psychoses to the thirteen civil State hospitals of New York State since 1909 is as follows:

Table 2. First Admissions with Alcoholic Psychoses, Civil State Hospitals of New York, 1909-1921

Year	Number			Per Cent of All First Admissions		
	Males	Females	Total	Males	Females	Total
1909	433	128	561	15.6	5.8	10.8
1910	452	131	583	15.3	5.0	10.5
1911	444	147	591	14.7	5.5	10.4
1912	434	131	565	14.4	4.8	9.8
1913	438	134	572	13.7	4.7	9.4
1914	348	116	464	10.4	3.6	7.4
1915	255	90	345	7.8	3.1	5.6
1916*	215	82	297	8.4	3.5	6.1
1917	437	157	594	12.1	4.8	8.6
1918	257	97	354	7.3	3.0	5.2
1919	204	65	269	5.8	2.0	4.0
1920	90	32	122	2.7	1.0	1.9
1921	167	26	193	4.6	0.8	2.8

* Nine months.

It will be noted from Table 2 that a marked decline in the number of alcoholic first admissions began in 1914 and became more pronounced in 1915. In 1916 a slight change



in trend occurred, and in 1917 a decided reaction took place, the number of alcoholic cases in that year exceeding that of 1913. In 1918, 1919, and 1920, the number of these cases fell off rapidly and reached its lowest point in 1920.

In 1921 the male alcoholic cases increased, although there was a further reduction in female cases. Chart I shows graphically the rates for both sexes since 1909, based upon the general population. These rates are found in the following table:

Table 3. Rates of Alcoholic First Admissions to the New York Civil State Hospitals per 100,000 of the General Population of the State, 1909-1921

Year	Rate per 100,000 of General Population of Same Sex		
	Males	Females	Total
1909	9.7	2.9	6.3
1910	9.9	2.9	6.4
1911	9.6	3.2	6.4
1912	9.2	2.8	6.0
1913	9.2	2.8	6.0
1914	7.2	2.4	4.8
1915	5.3	1.9	3.6
1916*	4.4	1.7	4.0
1917	8.8	3.2	6.0
1918	5.1	1.9	3.5
1919	4.0	1.3	2.6
1920	1.7	0.6	1.2
1921	3.2	0.5	1.8

* Nine months.

Correlation of Alcoholic Admissions and Per Capita Consumption of Liquors

That the rate of first admissions with alcoholic psychoses is closely correlated with the per capita consumption of liquors is seen from a comparison of the following index numbers computed from official reports for the years 1909 to 1920:

Table 4. Index Numbers of Rates of Alcoholic Psychoses and Per Capita Consumption of Liquors, 1909 to 1920

Year	Index numbers of rates of alcoholic first admissions to New York State hospitals	Index numbers of per capita consumption of liquors in United States
1909	100	100
1910	102	104
1911	102	108
1912	95	105
1913	95	108
1914	76	108
1915	57	95
1916	63	93
1917	95	95
1918	56	77
1919	41	44
1920	19	14

The coefficient of correlation between the two series of numbers is $0.875 \pm .045$. It is probable than an even closer correlation would have been found had data relative to the per capita consumption of liquors in the State of New York been available. (See Chart II.)

Decline of Alcoholic Psychoses in Massachusetts

The figures given above showing the decline in alcoholic psychoses in recent years in New York State are paralleled by data compiled from the official records of the state of Massachusetts by Cora Frances Stoddard,[1] from whose study the following table is taken:

1 *Wet and Dry Years in a Decade of Massachusetts Public Records*, by Cora Frances Stoddard. *The Scientific Temperance Journal*, June, 1922, Vol. 31, pp. 1-54.

INDEX NUMBERS OF FIRST ADMISSIONS WITH ALCOHOLIC PSYCHOSES IN NEW YORK STATE AND PER CAPITA CONSUMPTION OF LIQUORS IN UNITED STATES.

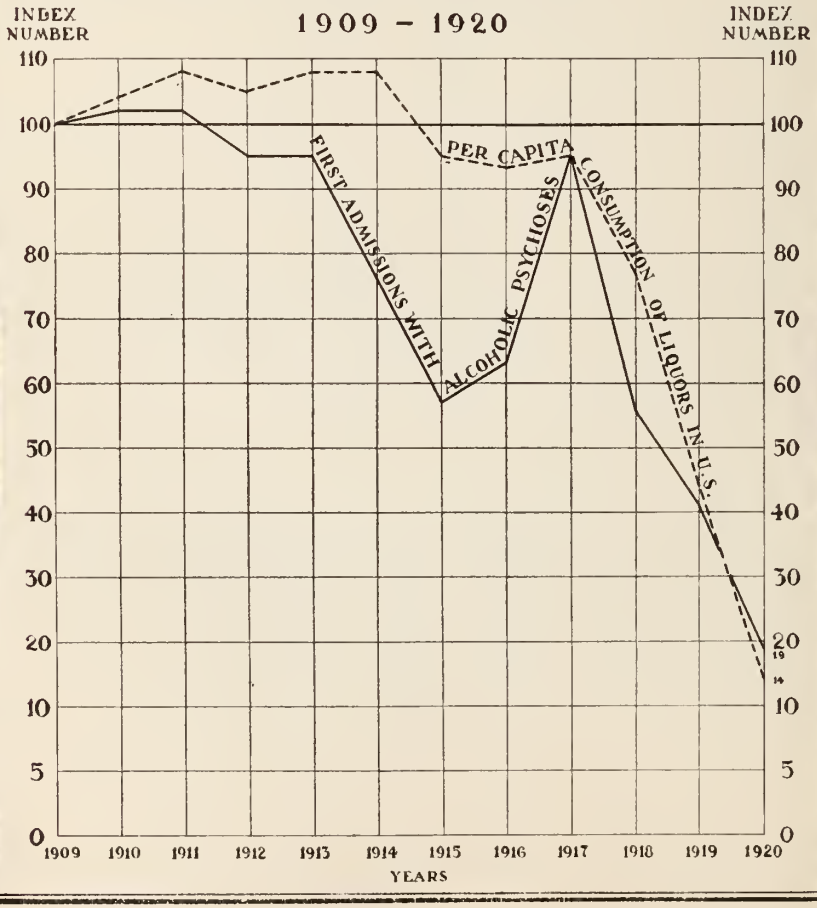


Table 5. First Admissions with Alcoholic Psychoses to Massachusetts State Hospitals for Mental Disease and McLean Hospital, 1912-1921

Year	Alcoholic First Admissions	
	Number	Per cent of total first admissions
1912	301	11.3
1913	367	11.8
1914	311	10.4
1915	299	9.5
1916	289	9.1
1917	511	12.3
1918	304	8.1
1919	296	7.8
1920	102	3.6
1921	151	4.9

The number of cases among all first admissions in which there is a record of intemperate use of alcohol shows a corresponding decline during the same period in both New York and Massachusetts. The data for New York State are given in Table 6:

Table 6. Intemperate Use of Alcohol Among First Admissions, New York Civil State Hospitals, 1909-1921

Year	Intemperate Users of Alcohol					
	Number			Per cent of total first admissions		
	Males	Females	Total	Males	Females	Total
1909	1,229	369	1,598	44.2	15.1	28.7
1910	1,684*	488*	2,172*	56.9	28.7	38.1
1911	1,082	302	1,384	35.9	11.2	24.3
1912	1,097	273	1,370	36.5	10.0	23.8
1913	1,103	318	1,421	34.6	11.1	23.5
1914	1,027	258	1,285	30.8	8.8	20.5
1915	939	225	1,164	28.8	7.5	18.7
1916†	725	182	907	28.2	7.8	18.5
1917	1,152	300	1,452	32.0	9.2	21.1
1918	851	253	1,104	24.1	7.7	16.2
1919	804	161	965	22.8	4.9	14.2
1920	684	119	803	20.3	3.7	12.2
1921	691	131	822	18.9	4.0	11.8

* Includes moderate drinkers.
† Nine months.

The gradual decline in the excessive use of alcohol indicated by the above table constitutes good evidence that a marked change in the habits of the general population with respect to the use of alcohol had been taking place for several years prior to the enactment of the Volstead Law. The change began before the World War, but was halted by the reaction of 1917. Later it was accelerated by wartime restrictions.

Alcoholic Admissions in 1921

The following tables, compiled by Miss Edith M. Furbush, Statistician of The National Committee for Mental Hygiene, from original standardized reports of state hospitals, give the latest available data concerning the prevalence of alcoholic psychoses in various parts of the country:

Table 7. Alcoholic Psychoses Among First Admissions to State Hospitals in Fourteen States, 1921

State	Total first admissions	Alcoholic First Admissions	
		Number	Per cent of all first admissions
California	2,459	110	4.5
Colorado	457	4	0.9
Maine	399	17	4.3
Massachusetts	2,538	130	5.1
New Hampshire	260	12	4.6
New Jersey	1,301	28	2.2
New York	7,104	210	3.0
Ohio	2,838	61	2.1
Pennsylvania	1,508	39	2.6
Rhode Island	329	19	5.8
South Carolina	740	9	1.2
South Dakota	193	1	0.5
Vermont	140	3	2.1
Virginia	1,315	24	1.8
Total	21,581	667	3.1

These representative data show that only 3.1 per cent of first admissions to state hospitals in 1921 were cases of alcoholic psychoses. Compared with figures previously given from the Federal Census of 1910 and the reports of

the New York State Hospital Commission, a marked general decline in alcoholic insanity is shown. This is further evidenced by the data of all admissions shown in Table 8, which is on nearly the same basis as the Federal Census figures:

Table 8. Alcoholic Admissions to State Hospitals in Fourteen States Compared with All Admissions and General Population, 1921

State	Total admissions	All Alcoholic Admissions		Rate per 100,000 of general population
		Number	Per cent of all admissions	
California	3,098	133	4.3	3.8
Colorado	480	5	1.0	0.5
Maine	490	20	4.1	2.6
Massachusetts	3,349	174	5.2	4.5
New Hampshire	301	14	4.7	3.2
New Jersey	1,557	38	2.4	1.2
New York	9,235	255	2.8	2.4
Ohio	3,539	77	2.2	1.3
Pennsylvania	1,728	47	2.7	0.5
Rhode Island	413	24	5.8	3.9
South Carolina	938	10	1.1	0.6
South Dakota	256	1	0.4	0.2
Vermont	197	3	1.5	0.9
Virginia	1,597	30	1.9	1.3
Total	27,178	831	3.1	1.9

It will be noted that the rate of admissions with alcoholic psychoses in these states was only 1.9 per 100,000 population, as compared to 6.7 for the whole country in 1910. During the year 1920, the first year under prohibition, alcoholic admissions to state hospitals were less than in 1921.

Table 9. Prevalence of Alcoholic Psychoses in Twenty States, 1919-1921

State	Number of Alcoholic First Admissions			Rate of Alcoholic First Admissions per 100,000 of Population		
	1921	1920	1919	1921	1920	1919
Arizona	*	3	..	*	0.9	..
Arkansas	*	8	5	*	0.5	0.3
California	110	*	*	3.1	*	*
Colorado	4	1	2	0.4	0.1	0.2
Connecticut	*	*	31	*	*	2.3
Georgia	*	9	9	*	0.3	0.3
Iowa	*	20	26	*	0.8	1.1
Maine	17	6	18	2.2	0.8	2.4
Massachusetts	130	91	295	3.3	2.4	7.8
Nebraska	*	*	6	*	*	0.5
New Hampshire	12	12	16	2.7	2.7	3.6
New Jersey	28	27	*	0.9	0.9	*
New York	210	143	285	2.0	1.4	2.8
Ohio	61	64	*	1.0	1.1	*
Pennsylvania	39	*	*	0.4	*	*
Rhode Island	19	14	19	3.1	2.3	3.2
South Carolina	9	5	6	0.5	0.3	0.4
South Dakota	1	2	..	0.2	0.3	..
Vermont	3	2	2	0.9	0.6	0.6
Virginia	24	21	30	1.0	0.9	1.3

* Data not available.

Table 9 gives comparative data for several states for 1919, 1920, and 1921. Although the table is incomplete, it shows considerable reduction in alcoholic admissions in several states from 1919 to 1920 and an increase from 1920 to 1921. The reaction in 1921 may be due to lax enforcement of liquor laws or perhaps in part to the economic depression.

Table 10. Sex of First Admissions with Alcoholic Psychoses in Twenty States, 1919-1921

State	1921			1920			1919		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Arizona	*	*	*	3	..	3	..	..	..
Arkansas	*	*	*	8	..	8	5	..	5
California	102	8	110	*	*	*	*	*	*
Colorado	3	1	4	..	1	1	2	..	2
Connecticut	*	*	*	*	*	*	27	4	31
Georgia	*	*	*	8	1	9	9	..	9
Iowa	*	*	*	20	..	20	25	1	26
Maine	16	1	17	6	..	6	17	1	18
Massachusetts	102	28	130	78	13	91	241	54	295
Nebraska	*	*	*	*	*	*	6	..	6
New Hampshire	9	3	12	12	..	12	15	1	16
New Jersey	25	3	28	25	2	27	*	*	*
New York	184	26	210	110	33	143	216	69	285
Ohio	57	4	61	60	4	64	*	*	*
Pennsylvania	34	5	39	*	*	*	*	*	*
Rhode Island	17	2	19	11	3	14	17	2	19
South Carolina	9	..	9	5	..	5	6	..	6
South Dakota	1	..	1	2	..	2	..	..	..
Vermont	2	1	3	1	1	2	2	..	2
Virginia	22	2	24	18	3	21	27	3	30

* Data not available.
2 See note, p. 75.

Table 10 shows the sex distribution of the alcoholic first admissions in the several states. Relatively the decline in female alcoholic first admissions in 1920 and 1921 was more than in male cases. These results correspond with those found by Miss Stoddard[2] in her study of the effects of prohibition among women. She states: "The women have apparently gained more than the men under prohibition, perhaps because they are less exposed to the bootleggers' blandishments and are less likely to seek out the tribe. At all events, the average number of women in all penal institutions of Massachusetts on September 30, 1920 and 1921, the two dry years, was the lowest of the decade, 60 per cent smaller than the wet years' average, while the total prison population on this date had dropped 52 per cent.

"A decrease of practically one-half in the number of

commitments to the State Reformatory for Women in the two prohibition years carries a stage farther the story, not only of the passing of the alcoholic women from penal institutions, but also of other women offenders."

Environment of Alcoholic Cases

During the entire period for which we have adequate data, alcoholic psychoses have been much more prevalent in urban than in rural districts. As previously mentioned, in 1910 the rates of all alcoholic admissions in the United States per 100,000 of general population of the same environment were 10.7 and 2.6 respectively. The admissions from urban districts in that year constituted 77.8 per cent of all the alcoholic admissions. Since 1910, the proportion of alcoholic cases from urban districts has increased. In a study[3] of first admissions to the New York civil state hospitals from July 1, 1915, to June 30, 1920, it was found that 90.9 per cent of the alcoholic first admissions were from urban districts. The average annual rate per 100,000 of general population was 3.7 in urban districts and 1.6 in rural districts. Representative data compiled by Miss Furbush from state-hospital reports of several states in 1919, 1920, and 1921, show the following percentages:

Table 11. Environment of First Admissions with Alcoholic Psychoses, 1919-1921

(Representative data compiled from state-hospital reports of several states)

	Urban		Rural	
Year	Number	Per cent	Number	Per cent
1919	333	85.6	56	14.4
1920	400	83.9	77	16.1
1921	622	84.4	115	15.6

As the number and location of the state hospitals reporting were not identical in the three years, the above data are not strictly comparable, but indicate clearly the preponderance of cases of alcoholic psychoses in urban districts.

3 *Mental Disease in Cities, Villages, and Rural Districts of New York, 1915-1920,* by Horatio M. Pollock and William J. Nolan. *State Hospital Quarterly,* November, 1921, Vol. 7, pp. 38-65.

Conclusions

1. Marked reduction in the prevalence of alcoholic psychoses throughout the United States has taken place since 1910. This is due partly to restrictions on the liquor traffic and partly to changes in the habits of the people.
2. The lowest rate of first admissions with alcoholic psychoses occurred in 1920; a reaction occurred in 1921.
3. The rate of alcoholic first admissions is closely correlated with the per capita consumption of liquors.
4. The reduction in the rate of alcoholic psychoses has been relatively greater among women than among men.
5. Admissions with alcoholic psychoses come principally from urban districts.

THE TREATMENT OF NEUROSYPHILIS AT THE MANHATTAN STATE HOSPITAL*

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As a part of the general plan of extending every possible benefit to the patients admitted to the Manhattan State Hospital, the systematic treatment of neurosyphilis cases was started in October, 1919. Because of the limited amount of arsphenamine then available, the progress was rather slow at first, only a few of the most promising cases being selected for treatment, but, the number has been increased gradually, until, at present, all suitable cases are receiving intensive courses of arsenic, mercury and iodides as indicated in each individual patient. For several months, the average of weekly treatments has varied from ninety to one hundred. To date over three hundred patients have been treated with some form of arsenic, and about three thousand doses have been administered intravenously. To this same group, over two thousand doses of mercury have been injected intramuscularly. The iodides have been given in the form of the saturated solution.

Necessarily, most of the clinical material has been supplied by the cases of paresis and cerebral syphilis, and it is the purpose here, to discuss the treatment of these groups, but, there have been a few cases, eleven in all, of systemic lues, associated with other psychoses, treated along with the other types. In these cases, physical symptoms and the positive serological findings, have quite rapidly disappeared. None of these cases showed any definite neurological signs, but, because of history of a chancre, a serological examination was made, with positive results on the blood. These cases of systemic lues, demonstrate three important points. First, that a routine blood Wassermann

* Read at the Interhospital meeting held at the Hudson River State Hsopital, March, 1922.

should be done on each new admission, and, if positive, a subsequent spinal fluid examination made; second, all positive cases should receive intensive treatment at once; third, all such positive results impose on the hospital a duty toward the families of such patients.

As soon as possible after admission, the fully developed cases of paresis and cerebral syphilis are divided into four groups:

In the *first,* are placed the most hopeful cases, those with well preserved personalities, and showing only slight mental deterioration and mild general physical decline; other things being equal, the younger the patient, and the shorter the time elapsed since the initial infection, are also considered favorable factors in selecting this group.

The *second* group contains all those patients that are in a serious physical condition, and must receive treatment at once, if at all. It has been found from experience, that some of these cases have improved remarkably under treatment.

The *third* group includes those which are not very encouraging, but are in fair physical condition, and apparently can wait a few weeks for treatment, without injury.

Lastly, there is a *fourth* group of cases which are apparently past help, either from the advanced lues or from some complicating disease as tuberculosis, nephritis or malignant process, etc. These are immediately excluded.

Following this classification, the first and second groups are taken for treatment without delay; the patients of the third group are used to equalize the number of weekly treatments, and the fourth group of hopeless cases are disposed of in such a way that no time is wasted in attempting the impossible. Also, excluding these very unfavorable cases, minimizes the possibility of accidents.

Hereditary cerebrospinal luetics have been given preference over all other patients, but thus far nothing has been accomplished, and nearly all of them have actually done badly under treatment.

Method of treatment: With some variations to fit individual cases, the following method has been carried out:

If a full serological examination has been done recently, this result is recorded; if not, a serological is done just before treatment is begun, and the results are used as a basis for treatment, and for comparison, with future findings. In order to insure the best results from treatment, two very important features must then be considered; *the preparation of the patient* for treatment, and the *preparation of the arsenic.* For a considerable time, no special attention was given to the condition of the digestive tract of the patients; because of this oversight, many disagreeable reactions resulted, such as headache, chills, fever, nausea, vomiting and general distress, lasting for two or three days. These untoward symptoms practically offset any benefit derived from a specific standpoint. Each patient should receive a laxative the night before treatment, and no breakfast the following morning. The intravenous injection is given as early in the day as possible, and no food is allowed before evening. Since this system has been enforced, not one patient has suffered from these troublesome symptoms, and the results have been correspondingly more beneficial. An empty stomach seems to be absolutely essential, for a successful treatment.

When a patient is in proper condition, the next important step is the preparation of the arsenic. Every precaution is taken to guard against using an oxidized or contaminated product, by completely immersing every ampule in ninety-five per cent alcohol for at least twenty minutes, just before using. Double distilled, freshly sterilized water is used to dissolve the neo-arsphenamine, and also to wash all instruments and receptacles. Even the site of the injection is sponged with this distilled water after being thoroughly cleansed with alcohol. Never more than six doses are dissolved at once, to avoid any change in the drug while standing. Twenty cubic centimeters of water, at room temperature, are used for each dose, and this is injected from a

Luer syringe through a Fordyce needle under rigid asepsis.

Each new case receives 0.3 of neo-arsphenamine or 0.2 of arsphenamine. If there is no urgency, the second dose is not given for two weeks; this gives the maximum time in which serious skin lesions may appear, showing that the patient has been previously sensitized to the drug. If there are no contra-indications, the second dose is 0.6 and all subsequent doses in the series are, 0.9 given at weekly intervals. A series consists of ten treatments, or until enough neo-arsphenamine has been given to equal eight doses of 0.9 or an equal number of doses of 0.6 of arsphenamine. Following the fifth and tenth treatments, a full serological examination is done.

As soon as a course of neo-salvarsan is completed, twelve intramuscular injections of the salicylate of mercury are given. The dose is one grain, injected each week. In the majority of cases, another series of neo-salvarsan immediately follows the last dose of mercury, and this again is followed by a course of the usual number of treatments with mercury. However, in other cases, after receiving one full course, only monthly treatments of neo-salvarsan are given. These monthly treatments are given to those who are enjoying a mental and physical remission, especially those on parole from the hospital.

From June 20, 1921, to November 20, 1921, twenty-five cases were treated with neo-arsphenamine, with *drainage*. Twenty-five other patients were used as controls, being treated with neo-arsphenamine *without drainage*. More will be said about this group later. Since November, all patients have been receiving spinal drainage one hour before each treatment, and a full serological examination is done after every third treatment.

In those cases showing high blood pressure, general arteriosclerosis, cardio-vascular disease, especially aortic lesions, and when there have been indications of gummata, the iodides have been pushed to the limit in the usual way. For several months, the iodides have not been given at the

same time as the arsenic, because of the few cases of mouth complications.

Untoward results: The general impressions gained from a review of all the results of the cases treated, quite naturally fall into two groups, those cases reacting unfavorably to treatment, and those which seem to derive more or less benefit from it.

In the first class, that is, *cases affected unfavorably,* must be considered those patients showing gradual mental and physical decline, while under treatment. There have been twelve cases which seemed in fair general health at the beginning of treatment, with no complicating factors, but, who lost flesh, developed anaemia, became more ataxic, and ultimately became quite feeble. Because of their condition, it was considered unwise to treat them any longer. They all showed some improvement after treatment was discontinued. Several cases have shown this unsatisfactory reaction for a time, but quite suddenly have begun to show rapid improvement. These latter cases seem to indicate that treatment should be carried out as long as the patient's condition will permit, with the hope that improvement will eventually occur. No satisfactory cause has been discovered for these peculiar reactions.

Another group showing untoward symptoms, seemed to be improving but suddenly developed stomatitis or some skin lesions. All authors agree that a stomatitis caused by arsenicals is serious, and the only case that has occurred in our series would seem to bear out this conclusion. In this case, the inflammation involved the lips, inside of the mouth and the nasopharynx. The patient also complained of pain in the esophagus. This followed the sixth treatment. Arsenic was discontinued and he slowly recovered. He had received no mercury or iodides. Many patients have demonstrated mild skin disturbances such as erythema, urticuria and localized irritation. These symptoms have been disregarded and have not interfered with treatment. Fourteen other cases have suffered from the more serious

skin troubles, as severe itching, macular or maculo papular eruptions and exfoliative dermatitis.

From experience, it has been found that when these last symptoms appear, treatment must be discontinued at once, otherwise the outcome is certain to be serious if not dangerous, as occurred in one patient who showed such slight desquamation that it was thought safe to go on with treatment. Following the next dose of neo-arsphenamine he developed a generalized exfoliative dermatitis with extreme oedema and extensive sloughing involving the skin and subcutaneous tissues. There was a high percentage of albumin in the urine. Several examinations previous to this attack had shown the urine negative. The patient lived for six weeks, finally dying in a convulsion. The skin lesions had improved, but he was not recovered. These severe skin changes have usually appeared after the sixth or seventh treatment, but, in one case, a severe dermatitis developed nine days after the first treatment, showing the wisdom of a long interval between the first and second treatments, or if possible, of ascertaining if the patient has been previously sensitized to the arsenic. While this patient had a very extensive dermatitis, still it was quite superficial and he soon recovered, probably because of the very small amount of arsenic in the tissues. If the usual routine of starting with full doses weekly, had been pursued, no doubt the reaction would have been more intense and prolonged.

No autopsy was obtained in the case which died during the course of the dermatitis and no systematic blood studies were made. At Johns Hopkins Hospital, it has been found that in many cases, the serious skin eruptions, especially dermatitis, are only a superficial demonstration of a very severe aplastic anaemia, so severe that the marrow in certain long bones, the femur, for instance, is replaced by large masses of lipoid substance. These profound changes show why such harmless looking eruptions should be given immediate attention.

There seem to be no premonitory signs which would in-

dicate the development of these reactions and nothing has been reported in the literature that throws any light on the subject, and apparently one must proceed cautiously, being constantly on the alert for the first contra-indications, which are; itching, slight scaling, a sparse macular eruption or a mild stomatitis.

Three cases of pronounced jaundice have developed but all recovered quickly on withdrawal of the arsenic and were able to receive intensive treatment after a short intermission, followed by a course of mercury. Very little trouble has been experienced with local infiltration or abscesses and there has been no sclerosis of the veins being used for injections. No accidents have occurred in the use of mercury, but a point might be mentioned concerning the injection of this drug. Most authorities give directions to drive the needle deep into the muscles and then remove the syringe to ascertain if the point of the needle is in a vein. If this is done while the syringe contains the oily preparation of mercury, the needle is already filled with the oil and the blood will not flow out; even though the point is in a vein. It is much safer to introduce the needle either alone or with a sterile empty syringe. On several occasions venous blood has flowed from the needle, indicating the puncture of a fairly large vein. An oil embolus in such a vein might easily cause serious trouble, if not instant death.

The use of any form of arsenic intravenously is always attended with the potential *danger of anaphylaxis.* Neither from experience nor from the literature have we been able to formulate any opinions about its anticipation. There have been four such cases at Manhattan State Hospital. The first patient showing this reaction had received three injections without any troublesome results; however, ten minutes after the fourth treatment, he suddenly complained of general weakness and vertigo, severe epigastric pain, nausea and shortness of breath. There was marked flushing of the skin. After these symptoms had continued for a few moments, the patient became unconscious and de-

veloped a generalized convulsion. He died during this convulsion, less than one hour after the treatment. The autopsy showed a small active thymus gland, a rather more active pulmonary tuberculosis than had been suspected, and some food in the stomach. Whether any of these factors contributed to the accident cannot be definitely stated.

The three other cases were almost identical with this one. They were all young males, in fair physical health; they all had received several previous doses of arsenic without any difficulty, and all suffered from the same symptoms, except one did not have a frank convulsion. All four of the anaphylactic cases seemed to be improving under treatment. Since the occurrence of the first case, a hypodermic of fifteen minums of adrenalin solution is prepared before any arsenic is administered. It has seemed that this adrenalin has given some relief to these three severe cases and has aborted several other cases, shortening the duration and diminishing the intensity of the attacks.

Therapeutic results: When an attempt is made to estimate the benefit resulting from the treatment of late neurosyphilis, it is immediately discovered that a comparison must be made of the general mental and physical health of a large group of untreated cases, with an equally large group of treated cases. These observations must be conducted over several years, according to some comprehensive plan outlined at the beginning. Until such a plan has been thoroughly carried out, no very definite opinions can be expressed. However, it might be profitable to mention some of the favorable results noticed in patients under treatment thus far.

These results might be best considered under four headings—general physical—mental—neurological and serological.

In practically every case benefited, the *physical health begins to show improvement,* as the first change. The digestion and assimilation become better, the patient gains weight quite rapidly, his color improves, he walks more

steadily, and apparently gains in general strength. Many of our patients had been confined to bed for sometime before treatment was started, and a fairly large percentage have improved to such an extent that they are able to walk around and help with the ward work; some are doing more responsible work at the hospital, and still others are on parole, and are working at home. In those patients who are in better physical health at the beginning of treatment, the improvement is not so marked, but still there is a noticeable change, so that those who were partially helpless, have become strong and quite energetic.

It is thoroughly appreciated that frequently patients suffering from neurosyphilis improve physically after admission to the hospital, and the general discipline, no doubt, is a very important factor, but many of the cases treated, have been stationary for months or were even showing gradual or rapid decline before treatment was begun. The definite improvement in a fairly large number of this class of patients, beginning almost simultaneously with treatment, seems to argue strongly for a close correlation between the two. If treatment is improving the physical health of the neurosyphilitics, naturally there should be fewer such cases in bed, a fact which is strikingly true at the Manhattan State Hospital, as the following observation shows: On February 11, 1919, a census of the male bed cases was taken, for a reason entirely foreign to the treatment of syphilis. Seventy-nine neurosyphilitics were found to be in bed. On February 11, 1922, a similar census was taken and only forty-one male syphilitics were confined to bed, a reduction of thirty-eight cases, or almost fifty per cent, while the actual number of cases of neurosyphilis in the hospital in 1919 was fewer than in 1922. These thirty-eight patients are much more comfortable and contented, require less care and attention, and from an economic standpoint they are much less of a burden on the State.

In regard to the mental condition, the improvement is not noticed so soon after the beginning of treatment, as are

the physical changes, and this improvement apparently depends to some extent, on the physical progress. If the patient gains *physically, quite regularly, his mental state shows a corresponding betterment;* his judgment improves, the memory defects are less pronounced; the delusions and hallucinations fade; the emotional reaction is more stable; there is less restlessness or violent tendencies, and, above all, the patient begins to realize that he is really ill. The treatment and attention seem to convince the patient that he is sick. Because of this change in the mental attitude towards the condition, the patient cooperates much better in the spinal punctures, and the injections.

The fact that more neurosyphilitics were discharged from the hospital in 1921 than in any one year since 1913, would seem to indicate that treatment has been of some benefit. Although actually more cases were discharged, yet, the percentage of neurosyphilitics discharged compared to the whole number of patients discharged, was less than in other years; we are convinced that this was due chiefly to the fact that this group was not urged out of the hospital as persistently as other types of psychoses. In fact, several neurosyphilitic patients have remained at the hospital longer than they otherwise would have done, in order to complete a course of treatment, so that the number of discharges could easily have been increased if any attempt had been made to do so.

A great many cases have been examined neurologically at the end of a course of treatment and the results compared with the neurological status before treatment was given, and no important changes have been found. Some findings point to a slight advance in the process and others seem to indicate a recession, but in the vast majority, the neurological status seems to have remained quite stationary.

Cases treated with and without spinal drainage: On June 20, 1921, fifty cases of general paralysis were selected for treatment, for the purpose of comparing results obtained when the intravenous method was used alone and when it

was combined with spinal drainage. This group was taken regardless of age, or condition of the patients, except to exclude one case with tuberculosis and another with advanced nephritis. This list of fifty patients was arbitrarily divided by designating the first half to receive the combined treatment, and the second half to receive the intravenous injections alone. This routine was carried out for eight months. Both groups received mercury alternated with the other treatment. After eight months' treatment, the following data were tabulated concerning each group:

Age, duration of time elapsing between initial infection and admission, duration of psychosis before treatment, time in hospital before treatment; mental, physical and neurological condition at beginning of treatment; serology at beginning of treatment; the number of treatments each patient received; the number paroled and discharged while under treatment; the number who died during the eight months and how long after treatment was started did they die; condition of living patients at completion of treatment; serology at the end of treatment. From these data some general averages and deductions have been made.

Reference to the accompanying table shows that the average age of the first group was thirty-nine years and a fraction, while of the second group, it was found to be forty-one years. The duration of time elapsing between the initial infection and admission of the first group, was fifteen and one-half years, of the second group it was sixteen years. The duration of the psychosis before admission, of the first group was one year and two months, of the second group, one year. The duration of the psychosis before treatment was one year, eight months, and one year nine months, respectively. The time in the hospital before treatment was eleven months in the first group, and one year and two months in the second group. The general mental, physical and neurological condition of each group seemed about equal. There were nine patients in bed included in the first group, and eight of the second. The average

serology at the beginning of treatment of the first twenty-five, was globulin 3 plus; cells 52; fluid Wassermann 3 plus; blood Wassermann 2.5 plus; while the second group showed globulin 2.5 plus, cells 27, fluid Wassermann 3 plus; blood Wassermann 2.6 plus. At the end of treatment, the first group showed an average of globulin 1 plus; cells 13; fluid Wassermann 1.6 plus; blood Wassermann 2 plus; the second showed globulin 1.3 plus; cells 16; fluid Wassermann 1.6 plus; blood Wassermann 2 plus. The number of treatments of the first class was 12 of arsenic and 12 of mercury; to the second group was given 13 of arsenic and 11 of mercury.

Three cases were paroled and two discharged of the first group, and one paroled and none discharged of the second. Three of the first group died during treatment, and eight of the second. One of the patients of the first group, confined to bed at the beginning of treatment, died, and two, who seemed in good general health, also died. Of the second group four deaths occurred in bed cases, and four in those who seemed to be in good general health.

Of the thirty-nine cases still living, only three are now in bed; one of these was in bed at the beginning of treatment, and the other two were not; one was included in the first group, and two in the second.

The data indicate that the two groups were about equally promising in every way at the beginning of treatment, and that each group received about the same amount of neoarsphenamine; the first shows three paroled and two discharged; the second, one paroled and none discharged. Of the first group, three died, while in the second group, eight died. The patients of both groups now living have improved noticeably in a physical way, but it seems that those receiving the combined treatment have shown the greater improvement. Mentally, there has been some general improvement, about equal in each group. Neurologically, there has been no remarkable change. Serologically, both groups show marked reduction in the globulin and cells, but much less improvement in the fluid and blood Wasser-

mann. Those receiving the combined treatment show much greater change in the globulin and cytology than those who received the neo-salvarsan alone. However, there is very little difference in the Wassermann reduction in these two groups.

As a result of the work so far done at the Manhattan State Hospital, the following tentative conclusions have been reached:

First. If a case of neurosyphilis is to be treated at all, it should be done as soon as possible after admission.

Second. Every patient to be treated should be thoroughly and properly prepared before each treatment.

Third. The greatest care should be exercised in the administration of any drug, but especially, arsenic intravenously.

Fourth. The intravenous injections of arsenic and the intramuscular injections of mercury are attended by potential dangers that cannot be disregarded.

Fifth. The physical and mental condition of many patients are improved by treatment, as shown by the greater number discharged while under treatment, and by the fewer patients confined in bed.

Sixth. The serological findings especially the cytology and globulin, are favorably influenced by treatment, and more markedly so when the treatment is combined with spinal drainage.

Seventh. There seems to be some correlation between the progress of the case and the spinal fluid findings. In several cases, the fluid indicated a rapidly approaching unfavorable outcome, even before it was apparent in the patient's general condition.

Eighth. There is a general impression that treated cases more often die suddenly of convulsions than of long continued decline and exhaustion. It might be offered as a suggestion that the treatment causes an improvement in the meningitis and an absorption of the exudate. As a result, the patient remains mentally clearer and physically

stronger, but the progress of the disease in the deeper tissues is probably not influenced to any considerable extent.

Ninth. Considering our experience to date, we feel that the benefits observed, justify a continuation of the treatment until a larger series of cases has been observed for a longer time.

Dr. Nathan Fialko, assistant physician, has been of great help in carrying out the courses of treatment and making observations on the condition of the patients. Dr. Tiffany, pathologist of the hospital, and Dr. Morse, serologist of the Psychiatric Institute, conducted the examinations of the blood and spinal fluid.

COMPARATIVE RESULTS OF TREATMENT WITH AND WITHOUT SPINAL DRAINAGE IN TWO GROUPS OF 25 CASES EACH

	AVERAGES					SEROLOGY														
						BEFORE TREATMENT				AFTER TREATMENT										
	Age	Time from infection to admission	Duration psychosis before admission	Duration psychosis before treatment	Number in bed before treatment	Globulin	Cells	Fl. Wass.	Bl. Wass.	Globulin	Cells	Fl. Wass.	Bl. Wass.	Number in bed now		Paroled		Discharged		Died
Treatment with drainage 25 cases	39	15½ years	14 months	20 months	9	3	52	3	2.5	1	13	1.6	2	1		3		2		3
Treatment without drainage 25 cases	41	16 years	12 months	21 months	8	2.5	27	3	2.6	13	16	1.6	2	2		1		0		8

SEROLOGICAL CHANGES FOLLOWING ADMINISTRATION OF NEOARSPHENAMINE*

BY WALTER H. SANFORD, M. D.,
PATHOLOGIST, KINGS PARK STATE HOSPITAL

In presenting this paper concerning serological changes following neoarsphenamine treatment of cases of general paralysis, the writer makes no claims for any new discoveries nor results, but has simply recorded findings in order to add data to previously existing statistics.

When the treatment was initiated a year ago, we made no attempt to select cases, many of the first set of patients being paretics of many years standing, some of them even bed-ridden because of the advanced state of their disease. As a result of this, out of the 76 cases who have received a full course of treatment, many could not be reported in these statistics because no serological examination had been made for a long time, the preparation of statistics not being considered at that time. However, many concerning whom data are cited, were advanced cases, although perhaps recently admitted.

In preparing the data, for uniformity's sake, I have shown the results of just one full course of treatment in each case, (even though some of the cases received further treatment with subsequent retests). This treatment consisted of intravenous injections of neoarsphenamine, (prepared by the Dermatological Research Laboratories of Philadelphia), the doses ranging from 0.9 grms, downward, depending on body weight and general physical condition of the patient, given once a week for 6 doses, accompanied at the same time by intramuscular injections of 1 grain of mercury salicylate, in oil suspension, and 5 grains of potassium iodide, by mouth, three times a day. The neoarsphenamine was dissolved in 10 c. c. of freshly distilled water, and

* Read at the Interhospital meeting held at the Hudson River State Hospital, March, 1922.

injected slowly by means of a syringe. As a rule, the retests were made about a month after the last dose of neoarsphenamine.

In order to eliminate personal equation, so far as possible, I have reported results in cases only, where the same examinations were made by the same persons, both before and after the treatment, so that the readings should be made under uniform conditions. The cell counts and globulin tests were made at this hospital, and Wassermann tests at the Psychiatric Institute and New York City Board of Health.

As above stated, for the first few months of the year, no discrimination was made as to the kind of case that was to receive treatment, although later, a more or less arbitrary rule was made that a case of more than a year's duration was not to receive treatment unless the personality was well preserved, or no advanced dilapidation present; still this was not a hard and fast dictum, there being exceptions; hence, the tables contain statistics concerning unselected as well as selected cases.

Table 1, shows the results of one course of treatment in cases of general syphilis, not neurosyphilitics nor for that matter, showing signs of syphilis, in an active stage in any case, but the routine examination of the blood on admission had shown a positive Wassermann reaction. This table was presented for two reasons; first, to show the effect of the treatment in syphilitic cases, and secondly, to compare the serologic results of treatment in cases of neurosyphilitics, and syphilitics without involvement of the central nervous system.

Table 2, deals with neurosyphilitics which had had no serological examinations just preceding the treatment, but this had been done a few months previously.

Table 3, presents statistics about neurosyphilis cases in which examinations had been made just before beginning the treatment.

I should explain that I have used the term "neuro-

syphilis'' to prevent any quibbling about the differentiation between general paralysis, and the so-called cerebral syphilis. I might add that in all these cases of neurosyphilis presented, the diagnosis of general paralysis was made except in one case, the second "J. R." in Table 3, which was considered, on admission, to be a case of meningeal cerebral syphilis, because of the apparent acuteness of the attack, and not from physical findings.

I might say here, that in all the cases treated, there developed no serious symptoms referable to the treatment excepting possibly one case, in whom marked jaundice developed after the 4th treatment; the patient rapidly emaciated and died a few weeks later. As she was in an advanced stage of paresis when treatment was begun—very restless and disturbed; also in view of the fact that her symptoms almost parallelled another case who had had no neoarsphenamine treatment, it is questionable whether her unfortunate symptoms may be attributed to the medication.

Of course in reading these tables, one has to remember that in some instances, untreated cases of neurosyphilis may show, within a few weeks, different serological findings in cell count, globulin and Wassermann reactions, and this feature has to be taken into consideration.

To summarize the charts, it will be seen that of the 9 cases of general syphilis, 8 were 4 plus and 1 was 2 plus Wassermann in the blood. These all became negative after one course of treatment excepting one case of 4 plus, which remained 4 plus, and one other 4 plus case which became 2 plus. Examination of these patients reveals no reason for this fact.

Of the 8 cases of Table 2, all show a marked reduction of the cell count,—in fact were normal in all but two cases; globulin did not entirely disappear in any case, but it became reduced in 3 cases; increased in 4, and remained the same in one case. The fluid Wassermann became negative in 2 cases; diminished in 3 cases and showed no change in 2 cases; statistics were not available in 2 instances. The

blood Wasserman changed from 4 plus to negative in one case; from 4 plus to 1 plus in 4 cases; from 4 plus to plus-minus in 1 case, and from 4 plus to 3 plus in one case.

Table 3 deals with 26 cases; the cell count was markedly increased in 1 case; slightly increased in 2 cases; reduced to normal in 10 instances; markedly diminished in 8 patients and the rest only slightly decreased. The globulin in 2 cases was increased; decreased markedly in 9 cases, and remained practically the same in the other tests. The spinal-fluid Wassermann became negative from positive in 6 instances; markedly decreased in 2 cases; increased from plus-minus to 4 plus in one instance; the rest remained unchanged, practically. The blood Wassermann changed from 4 plus to negative in 2 cases; was markedly diminished in 7 cases; increased from plus-minus to 4 plus in 1 patient; 6 remained unchanged, and the rest showed only a slight decrease.

It is to be noted that the cell decrease is not necessarily followed proportionately by Wassermann improvement, in the fluid or blood, but this is more apt to be the case than the change in the globulin. I would like very much to know why this positive globulin reaction remained so intractable as I can offer no explanation for it; in not one single case did the globulin reaction become negative, and in some cases it became aggravated.

We feel at Kings Park that the cases which have improved, are those in which the process is more or less superficial in the brain and therefore more easily reached by medication. We also feel that because of the small amount of dilapidation present, some cases which showed no mental or serological improvement, should improve with intensive treatment; so have determined to initiate intraspinous treatment and an order for the apparatus has been sent in.

Although this paper is supposed to deal solely with serology, it might not be amiss to add that of the 76 cases treated, some of them were unaffected, clinically, going

on steadily to a fatal termination; but on the other hand, of the 76 cases, 18 showed a very marked improvement and 7 are at home showing no apparent symptoms; several of these are not listed on these tables, unfortunately, as either they had not been punctured recently, or else they went home before complete serological examination had been made. Most of those who improved mentally, showed marked serological improvement, too, but candor compels me to state that J. L. of Table 3, showed a very marked mental improvement, yet his cell-count and globulin increased, the fluid Wassermann remained 4 plus and the blood Wassermann went from 4 plus to 2 plus. On the other hand, two cases, J. T. of chart 2 and J. R. the first of chart 3, although showing a markedly diminished cell-count, became progressively worse, both mentally and physically. Usually, even in cases showing marked improvement, the Argyll-Robertson pupil persisted.

In conclusing, I would say that it seems that in many cases, intensive treatment is certainly of benefit, although some cases are not at all affected by it; that the cell-count seems the most easily improved, and the globulin reaction, the most persistent of the biological reactions. This series of cases also shows the same results others have found, namely, that clinical improvement does not of necessity follow serological betterment, and that there is no hard and fast rule for the order of disappearance of the various serological findings.

Table 1. Cases of general syphilis without nervous system involvement

	Before Treatment	After Treatment
	Blood Wassermann	Blood Wassermann
L. C.	4+	—
J. G.	4+	—
J. M.	4+	—
J. O'C.	4+	4+
F. G.	2+	—
J. Mc.	4+	±
C. D'E.	4+	2+
J. U.	4+	—
J. J.	4+	—

Table 2. Cases of neurosyphilis in which serological examination had been made within a few months preceding treatment

	Before Treatment				After Treatment			
	Sp. Fl. cell-count	Sp. Fl. Globulin	Sp. Fl. Wassermann	Blood Wassermann	Sp. Fl. cell-count	Sp. Fl. Globulin	Sp. Fl. Wassermann	Blood Wassermann
M. S.	160	2+	4+	4+	5	±	3+	3+
D. G.	11	3+	4+	4+	3	+	3+	—
I. F.	11	±	4+	4+	0	±	+	+
J. T.	20	+		4+	6	2+	4+	+
R. S.	21	3+	4+	4+	4	±	—	+
J. S.	37	+	4+	4+	16	3+	—	+
J. K.	48	+	4+	4+	13	2+	4+	±
W. H.	96	+	4+	4+	4	3+		4+

Table 3. Cases of neurosyphilis showing serological findings immediately preceding, and one month after course of treatment

	Before Treatment				After Treatment			
	Sp. Fl. cell-count	Sp. Fl. Globulin	Sp. Fl. Wassermann	Blood Wassermann	Sp. Fl. cell-count	Sp. Fl. Globulin	Sp. Fl. Wassermann	Blood Wassermann
C. A.	positive	+	4+	4+	43	+	3+	3+
R. H.	50	4+	+	4+	37	3+	—	2+
J. L.	40	+	4+	4+	56	2+	4+	2+
L. L.	51	4+	4+	4+	13	3+	4+	4+
S. L.	64	4+	4+	±	29	3+	4+	4+
M. M.	42	2+	4+	3+	32	2+	—	2+
S. M.		+	4+	4+	19	4+	4+	4+
I. R.	160	+	4+		37	±		±
J. R.	104	4+	4+	4+	16	2+	3+	4+
J. R.	17	4+	3+	4+	4	+	—	—
J. W.	32	4+	4+	3+	5	+	±	+
M. O.	46	3+	3+	4+	2	3+	2+	—
M. H.	45	2+	4+	4+	4	±	—	2+
E. D.	32	4+	—	—	33	3+	—	—
D. D.	27	4+	3+	3+	6	4+	2+	±
F. F.	43	3+	±	4+	35	+	4+	4+
W. W.	16	4+	4+	4+	9	+	—	
G. S.	17	2+	4+	4+	11	2+	4+	+
B. R.	11	4+	4+	4+	29	4+	+	—
W. S.	3	4+	4+	—	1	1+	—	—
A. C.	52	2+	4+	4+	2	±		
H. A.	27	3+	4+	4+	17	3+	4+	4+
E. L.	42	2+	4+	4+	7	+		
T. R.	9	4+	4+	4+	5	2+		
A. Z.	180	+	—	4+	40	+	—	—
E. Z.	13	+	4+	2+	3	±	3+	—

MINUTES OF QUARTERLY CONFERENCE

OCTOBER 5, 1922

The Quarterly Conference of the State Hospital Commission with the State hospital managers and superintendents held at the Central Islip State Hospital, Central Islip, N. Y., October 5, 1922.

Present—

C. Floyd Haviland, M. D., Chairman, State Hospital Commission.
Arleigh D. Richardson, State Hospital Commissioner.
Lewis M. Farrington, Secretary, State Hospital Commission.
Horatio M. Pollock, Ph. D., Statistician, State Hospital Commission.
John R. Ross, M. D., Medical Inspector, State Hospital Commission.
George H. Kirby, M. D., Director, Psychiatric Institute, State Hospital Commission.
Spencer L. Dawes, M. D., Medical Examiner, Bureau of Deportation, State Hospital Commission.
Charles B. Dix, M. D., Inspector of Buildings and Engineering, State Hospital Commission.
Mrs. Eleanor Clarke Slagle, Chief Occupational Therapist, State Hospital Commission.
John J. Riley, Inspector, State Hospital Commission.
Charles G. Wagner, M. D., Medical Superintendent, Binghamton State Hospital.
Merritt J. Corbett, President, Board of Managers, Binghamton State Hospital.
Mrs. Ada D. Farnam, Manager, Binghamton State Hospital.
Isham G. Harris, M. D., Medical Superintendent, Brooklyn State Hospital.
David Corcoran, M. D., Clinical Director, Brooklyn State Hospital.
Mrs. Charles J. Druhan, Manager, Brooklyn State Hospital.
Frederick W. Parsons, M. D., Medical Superintendent, Buffalo State Hospital.
G. A. Smith, M. D., Medical Superintendent, Central Islip State Hospital.
H. G. Gibson, Jr., M. D., First Assistant Physician, Central Islip State Hospital.

G. W. Mills, M. D., Clinical Director, Central Islip State Hospital.
Robert King, M. D., Pathologist, Central Islip State Hospital.
C. L. Vaux, M. D., Senior Assistant Physician, Central Islip State Hospital.
T. W. Simon, M. D., Senior Assistant Physician, Central Islip State Hospital.
A. E. Ullman, M. D., Senior Assistant Physician, Central Islip State Hospital.
Frank Hinkley, M. D., Senior Assistant Physician, Central Islip State Hospital.
R. G. Reed, M. D., Senior Assistant Physician, Central Islip State Hospital.
D. D. Durgin, M. D., Senior Assistant Physician, Central Islip State Hospital.
F. D. Streeter, M. D., Senior Assistant Physician, Central Islip State Hospital.
J. F. McNeill, M. D., Senior Assistant Physician, Central Islip State Hospital.
W. N. Barnhardt, M. D., Senior Assistant Physician, Central Islip State Hospital.
W. A. Conlon, M. D., Senior Assistant Physician, Central Islip State Hospital.
Sara L. Smalley, M. D., Senior Assistant Physician, Central Islip State Hospital.
A. T. Wood, M. D., Senior Assistant Physician, Central Islip State Hospital.
V. E. Woodard, M. D., Senior Assistant Physician, Central Islip State Hospital.
E. H. Ende, M. D., Assistant Physician, Central Islip State Hospital.
Wm. J. Delaney, M. D., Assistant Physician, Central Islip State Hospital.
Louis A. Pindler, M. D., Assistant Physician, Central Islip State Hospital.
Charles R. Finch, M. D., Assistant Physician, Central Islip State Hospital.
Morris Rosenblatt, D. D. S., Dentist, Central Islip State Hospital.
W. J. McKee, Steward, Central Islip State Hospital.
James MacGregor Smith, President, Board of Managers, Central Islip State Hospital.

Rev. William H. Garth, Secretary, Board of Managers, Central Islip State Hospital.

Mrs. Edward E. Hicks, Manager, Central Islip State Hospital.

Mrs. Wilson R. Smith, Manager, Central Islip State Hospital.

Clarence A. Potter, M. D., Medical Superintendent, Gowanda State Homeopathic Hospital.

Walter G. Ryon, M. D., Medical Superintendent, Hudson River State Hospital.

Wm. C. Garvin, M. D., Medical Superintendent, Kings Park State Hospital.

Charles S. Parker, M. D., Senior Assistant Physician, Kings Park State Hospital.

J. H. Shuffleton, M. D., Senior Assistant Physician, Kings Park State Hospital.

M. M. Grover, M. D., Senior Assistant Physician, Kings Park State Hospital.

Rev. John C. York, Secretary, Board of Managers, Kings Park State Hospital.

Marcus B. Heyman, M. D., Medical Superintendent, Manhattan State Hospital.

William J. Tiffany, M. D., Pathologist, Manhattan State Hospital.

Gustav Scholer, M. D., Manager, Manhattan State Hospital.

Maurice C. Ashley, M. D., Medical Superintendent, Middletown State Homeopathic Hospital.

Eugene H. Howard, M. D., Medical Superintendent, Rochester State Hospital.

Paul G. Taddiken, M. D., Medical Superintendent, St. Lawrence State Hospital.

James E. Kelly, President, Board of Managers, St. Lawrence State Hospital.

Mrs. Mary S. Goodale, Manager, St. Lawrence State Hospital.

Mrs. Mary P. Cooper, Manager, St. Lawrence State Hospital.

Clarence O. Cheney, M. D., Assistant Superintendent, Utica State Hospital.

Robert M. Elliott, M. D., Medical Superintendent, Willard State Hospital.

Charles R. Phillips, M. D., Manager, Willard State Hospital.

William T. Morris, Manager, Willard State Hospital.

Mrs. Anna Augusta Horton, Manager, Willard State Hospital.

Mrs. Mary T. E. Williams, Manager, Willard State Hospital.

Thos. J. Clary, Manager, Willard State Hospital.
Hon. Lewis F. Pilcher, State Architect.
Col. Homer Folks, Secretary, State Charities Aid Association.
Bernard Glueck, M. D., Director, Bureau of Children's Guidance, New York School of Social Work.
Dr. Walter B. James of New York.
Dr. William L. Russell, Medical Superintendent, Bloomingdale Hospital.
Stanley P. Davies, Assistant Secretary, State Charities Aid Association.
Rev. John Tilly.
Dr. Davis of New York.
Dr. Amos Squires, Physician, Sing Sing Prison.
Dr. E. S. Moore, Coroner.
Raymond F. C. Kieb, M. D., Superintendent, Matteawan State Hospital.
Charles M. Burdick, M. D., Superintendent, Dannemora State Hospital.
William Van de Wall, Musical Director.
Dr. M. A. Curry, Superintendent, New Jersey State Hospital, Morris Plains, N. J.
Dr. B. A. Elzas, New York City.
Dr. George A. Smith, Jr., Nyack, N. Y.
Mr. M. I. Hogan, Steward, Kings Park State Hospital, Kings Park.
Mr. and Mrs. M. E. Travis, Hornell, N. Y.
Mrs. Grace Wilson Whitehall, Manager, Brooklyn State Hospital.
Mr. A. Weber, Secretary to State Architect, Albany, N. Y.
Rev. Father Kennedy, Central Islip, N. Y.
Rev. Father Kiernan, Central Islip, N. Y.
Mrs. T. Butler, New York City.
Mrs. G. A. Smith, Central Islip State Hospital, Central Islip, N. Y.
Dr. Edward E. Hicks, Brooklyn, N. Y.
Mrs. C. Floyd Haviland, Albany, N. Y.
Mrs. Arleigh D. Richardson, Ilion, N. Y.
Mrs. Lewis M. Farrington, Albany, N. Y.
Mrs. H. G. Gibson, Central Islip State Hospital, Central Islip, N. Y.
Mrs. D. D. Durgin, Central Islip State Hospital, Central Islip, N. Y.

Mrs. G. W. Mills, Central Islip State Hospital, Central Islip, N. Y.
Mrs. W. J. McKee, Central Islip State Hospital, Central Islip,
Mrs. G. C. H. Burns, Central Islip State Hospital, Central Islip, N. Y.
Mrs. C. L. Vaux, Central Islip State Hospital, Central Islip, N. Y.
Mrs. J. F. McNeill, Central Islip State Hospital, Central Islip, N. Y.

Commissioner Haviland in the Chair.

The Chairman: The Conference will please come to order. Mr. James MacGregor Smith, President of the Board of Managers of the Central Islip State Hospital will say a few words.

Mr. James MacGregor Smith: Mr. Commissioners, Boards of Managers, Ladies and Gentlemen of the Conference. In behalf of the officers and Managers of Central Islip State Hospital it given me great pleasure to bid you welcome this morning. We realize that this honor involves a long journey on the part of many of you. It is a long distance from the banks of the Niagara and the St. Lawrence to the sloping down point of Long Island but our welcome is in proportion to the distance you have traveled. We are glad to see you here. I would like to add a personal note to this welcome—not personal to myself. It is just twenty years since I had the honor of becoming the President of the newly appointed Board of the old Manhattan State Hospital. It consisted at that time of three distinct institutions; two on Ward's Island and one at Central Islip; each with its superintendent and each with its separate medical staff. Of those superintendents—those three superintendents were all great men—two of them Dr. McDonald and Dr. Dent have passed from the scenes of their labors; Dr. Smith is still with us and long may he remain. (Applause.) The medical staffs of the old Manhattan hospitals furnish a list of names certainly very notable in the history of this State. They have spread to all branches of the service and it would be a very interesting thing some time to just take up those lists to see where they all are. I am happy to see many of them are here this morning. At that time on the staff of the West hospital was a young physician who was already making his mark. I think we saw at that time signs of the distinguished career which he has since developed. We have seen him in this and another State advancing to the high grade of professional work with which he is now associated. I

am quite sure I speak for all of the old Manhattan men when I say to our presiding officer with all deference and respect, sweetened with recollection of by-gone days, that we bid him welcome to his old home. (Applause.) If not on this occasion to the Mansion House, to the old farm colony and if our manners are more rustic, our welcome is just as sincere. Dr. Haviland we bid you welcome to the old Manhattan Farm. (Applause.)

The CHAIRMAN: Mr. Smith, on behalf of the Conference and for myself personally I would express our very great appreciation of the welcome you have extended to us. I think the hospitality that is always to be found at Central Islip has become proverbial. It has a unique and a special character of its own. We can always count on a genuine and hearty welcome here from every individual connected with the hospital from the President of the Board of Managers all the way down the line. While the superintendent stands out prominently embodying and exemplifying the very spirit of kindly hospitality, we know his attitude is shared by the whole Central Islip official family. We expected to find a cordial welcome here and we do find it this morning. We thank you, Mr. Smith. (Applause.)

Our time is limited and we must at once proceed with the program.

The general theme to be discussed is the fundamental topic, "The Importance of Early Recognition and Treatment of Mental Disorders." The first phase of the topic to be presented is the matter of psychopathic hospitals. I am sure that every one present will agree that our State hospital system will remain incomplete so long as we lack modern psychopathic hospitals, especially in New York City where the need for such an institution is pressing and insistent. I know of no person better fitted to treat of psychopathic hospitals, especially as regards the relation of construction to special hospital functions than the State Architect who has kindly consented to be with us today and present a paper on "Proposed Plans for a State Psychopathic Hospital in New York City." I will call upon the Hon. Lewis F. Pilcher, State Architect, to present his paper.

(Mr. Pilcher's paper appears on page 3 of this issue.)

The CHAIRMAN: Mr. Pilcher declaims being a medical man but I am sure after hearing his paper, we can at least designate him as a medical architect. This important paper will be left for dis-

cussion until after we have heard the other papers to be read. We will then have a joint discussion of our general topic and of all the papers.

I understand Dr. Glueck has to take a train and with the permission of the speakers ahead of him on the program, I will ask Dr. Glueck to read his paper at the present time.

(Dr. Glueck then presented his paper on "Mental Disorders in Children.")

The CHAIRMAN: It is very evident we were very fortunate in the persons invited to read papers today. Dr. Glueck's paper will undoubtedly be fully discussed when we take up the general discussion of papers.

Before proceeding to the next paper on the program, I would like to read a letter received by the State Hospital Commission.

(Dr. Haviland read letter on the death of Mr. E. Lyman Brown, former Manager of the Hudson River State Hospital.)

I think it would be in order if a motion was made to appoint a committee to draw up resolutions on the death of Mr. Brown for action by the Conference. Such a committee could prepare resolutions while we continue with the Conference.

Dr. RYON: Mr. Chairman, I beg to move that the Chair appoint a committee to adopt certain resolutions on the death of Mr. E. Lyman Brown.

This motion was duly seconded and adopted.

The CHAIRMAN: I will appoint Commissioner Richardson representing the Commission; Mr. Smith, President of the Central Islip Board of Managers, representing the managers; and Dr. Ryon, Superintendent, Hudson River State Hospital, representing the superintendents, as a committee to draw up resolutions to present to the Conference.

The CHAIRMAN: We continue fortunate in those who consented to speak to us today. The next paper we are to have the privilege of hearing is by Col. Homer Folks, Secretary of the State Charities Aid Association, whom we all know, and who never fails to present something of interest and profit. Col. Folks will speak on "The Need of a New City Psychopathic Hospital in New York City."

(Colonel Folks' address appears on page 26 of this issue.)

The CHAIRMAN: Mr. Folks has shown the need of stretching our minds regarding the psychopathic hospital situation in New York. Certainly his paper is most illuminating and I am sure we all appreciate the needs of the situation.

The next paper is to be presented by Dr. John R. Ross, Medical Inspector, who will read a paper on "The Need of Psychopathic Departments in State Hospitals."

(Dr. Ross' paper appears on page 34 of this issue.)

The CHAIRMAN: Fortunate as we have been today in the persons who have been so kind as to present papers we are equally fortunate in those who are to open the general discussion which will be upon all the papers we have heard. Discussion will be opened by one who has devoted much time and thought to psychiatric problems and especially to the need of a psychopathic hospital in New York City. He is able to speak from the standpoint of an informed internist, who fully appreciates the important relationship existing between general medicine and psychiatry. It is with very great gratification that I call upon Dr. Walter B. James, member of the State Hospital Development Commission, to open the discussion.

Dr. WALTER B. JAMES: Ladies and Gentlemen: When I think of the food that Dr. Smith has prepared for us and I look at the clock, I know I will have to be brief.

Dr. Grenfell in his old days of Laborador fame, before he became interested in the work at Laborador, tells this story. He says by chance he strayed into Moody's Church in Boston and the minister was announcing that Brother Johnson would offer a prayer and Brother Johnson prayed and prayed, and just as Dr. Grenfell was about to leave, the loud clear voice of Moody, the evangelist, rang out saying, "Brethren, while Brother Johnson continues his prayer, we will unite in singing hymn 420." I don't want to tempt any one to put off a hymn on me.

It is the greatest of pleasure to me to appear before this delightful gathering, for during the five years I have been associated with the State Hospital Development Commission, I have come to be very fond of the State hospital system and of the people in it, and anything I can do in accordance with my own convictions I am free to confess, I am more than glad to do.

This matter of the psychopathic hospital is very important. I happened to be a member of a little sub-committee, of three or four of the Development Commission, who went about the country studying all the psychopathic hospitals we could find in various cities and since that time we have been working out a plan with Mr. Pilcher, all the credit of which is due to him, and using our best efforts to persuade the State to go ahead and build such a hos-

pital. Now it hardly seems necessary to go over the arguments and reasons why we need a State psychopathic hospital. We have only to go to other cities where psychopathic hospitals are working so well to see that they are practically a necessity to any vast mechanism like our State hospital system. Take one of the very important and often not very carefully considered groups,—the taxpayers. Psychopathic hospitals are part of this great effort in which all of us are engaged to try to lessen the burden of wretchedness, unhappiness and suffering on the part of the community; and to radically reduce the miserable burden of expense put on the taxpayer. I am convinced there are few ways of accomplishing the purpose better than through the building of such a psychopathic hospital as Mr. Pilcher has described and throughout our whole community give the impression that mental disease is the same as physical disease and has to be attacked in exactly the same way. We still attack crime the way Job did; we still rub our head with ashes and thank God it is no worse. Too often we have attacked mental disease in the same way. We attack physical disease in a more effective way. We don't take anything in physical disease for granted, nor assume that it is necessary. We don't delude ourselves with the idea that physical disease really comes from God. It is our own fault; mental disease is the same, our own fault, and crime is our own fault, and all these problems must be attacked from exactly the same standpoint, the point of view of modern science which means analysis, careful study, development of remedies, and the logical application of them.

In Baltimore the Phipps Institute has done wonders in mental disease and practically changed the mental attitude toward psychic disorders. The Boston Psychopathic Hospital has done practically the same thing. You don't have to put up buildings to revolutionize the state of mind of medical men.

In Baltimore, it is rather a mark of distinction to have been in the Phipps Institute, and I cannot tell how many people go there. They talk about it and of the great benefit they have received just as freely as of their last trip to Hot Springs. Now we have got to have something of that sort here.

When people are brought under treatment in the early stages of their mental disease, you will see a great dimunition in serious mental disease and a lessening of the number of people that have to be taken care of by the public authorities. Few people have any

idea at all how many there are in the community who suffer from some kind of a mental attack that has some degree of seriousness.

The relation of these two proposed institutions, the City and the State institution, which we have all had close to our hearts is a very interesting one. The city institution, in which so naturally Mr. Folks is interested, is a very fascinating subject. The city institution never will take the place, in my judgment, of such a mechanism as Mr. Pilcher has drawn up.

I was very much interested in Dr. Ross' paper. I think it was an admirable presentation of the very important need in this and in every other State hospital system. The Development Commission have been preaching ever since its existence the need of more attention being paid to the treatment of patients. The first thing to do in any hospital for the sick is to treat the patients and keep that always before the mind. But you cannot possibly put sick people in the hands of competent, interested, earnest and patient medical men for treatment and have them treated properly and conscientiously, without having research and teaching follow just as inevitably, and just as logically as night follows day. You cannot prevent it, but where you start out with research, you always find the other side is neglected. I think that is a point that is not sufficiently understood by the non-medical man. I go so far as to say that you should treat your patients to make them well. You should try to make as many sick people well as possible. If you men will direct your energies toward curing or benefiting every possible individual under your care, I don't believe you can possibly prevent the Legislature or the people in authority from giving you all you need to carry on your work in the best possible way. Now, of course, we cannot catch the ultimate in medicine. We are pursuing it all the time. We are pursuing perfection in all our institutions. We cannot catch it because when we get there it has gone ahead of us.

The CHAIRMAN: The formal discussion will be continued by Dr. Kirby.

Dr. KIRBY: I have been fortunate in having had an opportunity to work over with Mr. Pilcher, Dr. James and Dr. Salmon the main features of the plans which have been presented today. Members of this conference hardly need any argument to convince them of the desirability and real need of a State psychopathic hospital, but nevertheless a well worked out structural and functional analysis

such as Mr. Pilcher has made serves to crystallize the various aspects of the problem, many of them new ones, in a way which would be difficult to convey by any other method. Mr. Pilcher has told us that his part in the development of the plans has been that of a translator into architectural language of the experience and knowledge which we physicians now possess and feel the need of utilizing in the early treatment and attempts at prevention of mental disorder. But he has also assembled facts to show that the proposition is medically and economically sound and in harmony with accepted scientific teaching as shown by analogies in other branches of medicine. The general plan as it has now been developed seems to me to be very well balanced with its provisions for treatment, for research, for teaching, and for services to the State hospitals and other State departments having psychiatric or behavioristic problems to deal with. The motive for the new institution can be simply stated: To get cases early and study them intensively and treat them with the idea of effecting either a cure or betterment.

As to the actual results that can be obtained in the way of betterment or cure of patients treated, with, it is hoped, a corresponding reduction of admissions to State hospitals, we can of course only make approximate estimates. I do not think the figure quoted by Mr. Pilcher of 60 per cent probably benefited by treatment and returned home, is too high. In the psychiatric hospital we would deal largely with early cases, many would be brought or would come for treatment months or years earlier than under the present plan of commitment. There is little doubt but that a considerable number of patients now committed to State hospitals could, if sent to a psychopathic hospital, be handled in the out-patient department after perhaps only a few weeks' treatment in the hospital and in this way a large group of cases could be carried along to improvement or recovery without commitment. In this connection it might be of interest to mention the result of an analysis I recently made of the length of time committed patients remain under treatment in the Manhattan State Hospital before release. There were in round numbers 900 patients discharged from the Manhattan State Hospital last year. Excluding the cases deported or returned to other states as non-residents, I found that 36 per cent of the patients discharged had been under treatment in the hospital, before their parole, less than three months, a considerable number having been not longer than one month in the hospital; that 59 per cent had remained in the hospital less than six months.

These figures show that under the present system a large proportion of the ordinarily committed patients can be placed on parole after only a relatively short period of treatment. I believe that many of these cases could have been handled in a psychopathic hospital without commitment to a State hospital.

It would be a mistake to think that the sphere of influence of the new psychopathic hospital would be chiefly of a local character. Located in New York City, the hospital would have contacts with a community that furnishes about one-half of all the cases committed annually to the State hospitals, but as mentioned by Mr. Pilcher, the psychopathic hospital would also have close contacts with various other State departments, for instance, the prisons, reformatories, courts and schools. Furthermore, the new hospital should, I think, be utilized by the Hospital Commission as a central agency to carry on a systematic, state-wide educational and mental hygiene program, including lectures, exhibits, local studies and surveys conducted in conjunction with the various State hospitals.

The danger of reduplication or possible conflict in the plans of the city and state in the development of psychiatric facilities seems to me to be very remote. While there might be some overlapping, the main aims and objects of the two institutions could, I believe, be very well differentiated. Bellevue Hospital should continue its present important functions of commitment and of serving the local courts, police department and other municipal agencies. The psychopathic hospital will do what Bellevue Hospital is unable to do and probably could not do satisfactorily even with expanded facilities and at the same time meet all the other demands made on it.

In the psychopathic hospital the main emphasis would be placed on (1) the treatment of incipient cases, a large proportion of them voluntary, that need treatment but do not require commitment, (2) on the acute cases of short duration, (3) on the large number of cases that can be very well cared for in an out-patient clinic without commitment.

The educational value of such an institution, its influence on the public and the medical profession, can hardly be over-estimated, but the lateness of the hour will not permit me to take up the discussion of this important phase of the problem.

I think Dr. Ross' suggestions possess a great deal of merit. I think, however, one should be careful not to build up one department of a State hospital at the expense of others. We should

certainly strive to develop a good reception service in each one of our State hospitals where everything possible can be done for the treatment of the patients admitted. At the same time there are other problems of treatment and reconstruction which can only be efficiently carried out in other types of services. We should avoid any development which would tend to make any of our services more custodial than they are at present.

The CHAIRMAN: Formal discussion will be continued by Dr. Mills of the Central Islip State Hospital.

Dr. MILLS: Mr. Chairman, Ladies and Gentlement: When Dr. Pollock asked me if I would take part in this discussion, I wrote him I would if I had anything worthwhile to offer or something not covered by others. My letter seems not to have helped me any however, and I was much disappointed when I saw my name on the program.

Before hearing the papers I jotted down a few things and just as I feared they have all been covered very well by the other speakers.

It is, I suppose, gratifying to know you are a member of the herd and think like other people, but when one has to take part in a discussion, one surely would like to have something new to offer.

There are perhaps a few remarks I can make. It seems to me clear that there will be some confliction of interests between the State and City and I am sorry the situation is developing in that way.

I don't just see why a psychopathic hospital for New York City should be limited to 200 beds or just where one gets that figure of 200. I believe Cleveland has a psychopathic hospital with 200 capacity. It seems in speaking of New York, the tendency always has been to think of the Borough of Manhattan only.

Bellevue Hospital at the present time is caring for Manhattan and the Bronx, but with the present rate of growth how long will it takes care of the increase? And I have not heard anything of Kings, Queens or Richmond which are of interest to the hospitals of the metropolitan district.

Dr. Smith asked me to say that he is very much interested in the project. He believes there should be more than one psychopathic hospital in the greater City, but he recalls very well the time when in 1904 he and Dr. Peterson selected a site in the City and that site did not meet with the approval of certain individuals. I was

not in the service at that time but I came in shortly after and recall hearing more or less talk about psychopathic hospitals ever since. I had a feeling for a long time that I would like to work in such a hospital, but I am beginning to wonder if I won't be too old and antiquated by the time it is built. I hope the discussion today is going to crystalize the thing. I think the need has been clearly and well presented by Mr. Pilcher in his paper.

One other point which was discussed at the Ogdensburg meeting, the need of more and better physicians in the service. It seems to me that psychopathic hospitals will help us in that way. The psychopathic hospitals must, I believe, be run in conjunction with the medical colleges of the city and internships provided. We ought to be able to interest them in our line of work and from them our staffs could be filled.

I think I have heard mentioned that a survey has been made; a survey of hospitals in other states, but I have not heard of any survey being made in the greater city of New York and it seems to me that would have to be done first. Dr. Ross' ideas, I think, we will all agree are very good, but is not the question of psychopathic hospitals for early cases,—of psychopathic hospitals for the cities, the thing of primary interest, and should it not receive all our energies at the present time?

The CHAIRMAN: All of the papers which have been presented are now open for general discussion.

Dr. JAMES: I meant to say that Dr. Ross very delightfully described what ought to be presented for the purpose of treatment in the State hospitals. I wonder if he realizes that in all the new construction designed by and through the efforts of the Development Commission and Mr. Pilcher, thorough provision has been made for psychopathic departments. If you will look over the plans for new buildings at Kings Park, Marcy and Creedmoor you will see that the so-called reception building is really a psychopathic institution with full equipment.

I agree with Dr. Ross that we should not say to the State hospital system, now you need not bother with the treatment of late cases. I think treatment of late cases is just as important as treatment of early cases.

Dr. HARRIS: I was extremely interested in the paper read by Mr. Pilcher. He has given us a great deal of food for thought, and his arguments for the building of the psychopathic hospital in the City

of New York are all valid. Every large municipality should have an institution of this character properly manned and equipped for the work. One of the most important functions outlined in the paper was that of teaching. It is unfortunate that psychiatry is not included, as it should be, in the curriculum of all the medical schools. A number of years ago the Medical Society of the State of New York passed a resolution urging all medical colleges to include this subject in their curriculums. A number of colleges have done so, but the teaching of psychiatry in medical colleges is not what we would like it to be. I know we all fully appreciate the excellent presentation and argument of Mr. Pilcher.

I quite agree with Mr. Folks that we have been trying to meet a large number of problems for a great many years; and we believe that we have grown some; that there has been a gradual realization by the public of the importance of psychopathic hospitals or wards. A psychopathic hospital with proper facilities was fairly outlined in the Mohansic scheme, published in January, 1911.

I agree with Dr. Ross that we should have a neuro-psychiatric reception service in every State hospital. It should be properly manned and equipped so that work may be carried along in co-operation with that of the central Psychiatric Institute. I would like to see every general hospital have a ward properly manned and equipped to care for psychiatric cases, temporarily at least. We have gradually become more lenient in regard to the admission of psychiatric cases to hospitals. We believe we should become still more lenient and that patients should be able to come to us as people now go to general hospitals. All of this red tape about commitment is a detriment rather than advantage to most patients. The psychology of the whole situation is important.

In all of these institutions the social service department should be so organized that there would be sufficient help to cooperate with schools and different organizations and do the work that should be done in the different families of the patients.

Public lectures should be held regularly on mental hygiene subjects and a presentation of public health questions should be carried on constantly.

Concerning the conflict between City and State, I do not anticipate any trouble. There is a sufficiently large field for both City and State work without friction in any respect. It is very important to have the general profession with us. Too much emphasis

cannot be placed upon the importance of having all kinds of specialists to advise and assist.

Etiology is important, but most important is prevention; after you are hurt. "cure" is the only word. Therefore, facilities, men to work, nurses to assist and money provided will accomplish that which is conducive to health.

In conclusion I wish to give a quotation from my paper, "Problems of Psychiatry in the Metropolitan Area," which was read at a conference held at the Brooklyn State Hospital, May, 1918, and refers especially to psychopathic hospitals, publicity, etc.

"In considering the organization of a psychopathic hospital we must not forget the question of *rehabilitation* and *re-education*, and we must have our departments for such work, including not only *occupational, but diversional and teaching.* Thus by the general education of the public, and by the dissemination of information, not only through the processes mentioned, such as our hospitals, schools, and charity organizations, but by public lectures and publicity in the newspapers, there will be a tendency to bring about wiser measures for the *treatment and prevention of mental disorders and for the preservation of mental health.*"

Dr. Elzas: May I just say one word as one deeply interested by virtue of my various professions and by a long career in which this very vital question has come home to me on numerous occasions. I have been a physician now well nigh twenty-five years, I am a clergyman by profession and for thirty-five years have been in close contact with the inside of prisons as a visitor. I have studied the psychopathic problem very closely. There can be no question that frequent visitation to an institution such as Central Islip so admirably planned, so wisely managed, must impress the visitor with the awful truth, that there are and must be hundreds of these unfortunates who might have been spared the agony of confinement within its walls and its subsequent unfortunate results.

I have also been a social worker coming in contact with the relatives, parents and friends of these unfortunates, and I know the difficulties when a patient has once been put out of the way, of effecting an adjustment of these unfortunates to their social environment.

What has struck me as remarkable about this very vital proposition—the establishment of this psychopathic hospital—is the fact that the public has not been educated to its necessity in any

manner, shape or form. I have been living twelve years in New York. I read all the daily newspapers and I see nothing that would rouse public interest and mould public opinion, and public opinion is really easily moulded if you make use of newspaper publicity.

I lived in Charlestown, S. C., for sixteen years and in 1909 Charlestown was proclaimed by the authorities at Washington as having the greatest death rate in the United States. That death rate was 39.8 and we were bragging that we were living in one of the finest health resorts! We had a meeting of the medical society, and I was appointed chairman of a committee to investigate and we found that the figures were absolutely correct. Upon investigation of the vital statistics we found that the death rate was due to an enormous infant mortality among the negro population. We called a mass meeting of the citizens, and to cut a long story short, we brought the great tuberculosis exhibit on from New York; we started an educational campaign and it was not sixty days before we had the population so wild that we found it easy to establish a society for the prevention of tuberculosis which now has branches in every cross-roads, town and city in South Carolina. We made propaganda and I tell you ladies and gentlemen there is no better way for bringing facts before the people than emphasizing the "money value" of a man. Look what it is costing for the care of the insane, the criminal insane, the mental defective, and the delinquent. Those statistics could be compiled in three or four days and could be compiled so that they would come to the people with sledge-hammer force. The New York papers would give you space, and would speak to millions of people for you, and I suggest that the first thing we should do is to start right now to prepare the propaganda for our newspapers. If you cannot get it published, give it to me and I will see that it is published and the rest will follow. Prevention is better than cure, and the money value of the man is the point to be emphasized. There are tens of thousands of our people living in the City of New York today helpless, hopeless and their relatives do not know where to turn for help. I myself would like to throw myself heartily into such a movement that would bring about this consummation so devoutly to be wished.

Dr. Harris: The question of publicity (propaganda) is a subject very close to many men connected with the work. Much has been done by the State Charities Aid Association. I think it is the

keynote in our work. I rise to make a motion, Mr. Chairman, that for the consideration of this very important subject you appoint a committee on plan and scope to be submitted to the Commission for approval.

Dr. Harris' motion was duly seconded and carried.

The CHAIRMAN: The motion as I understand it is that a committee be appointed to consider proper means and methods of publicity to inform the public regarding the work of the State hospitals and pertinent facts relating to mental disease. The committee will be appointed and personnel announced at a later time.

Dr. DAWES: I have a considerable degree of hesitancy in approaching this subject because what I have to say is neither physiologic, pathologic, nor even therapeutic; as a matter of fact it is wholly economic, and you know how little knowledge of economics the medical profession is said to have. Col. Folks has told us about the great size and importance of New York. He did not tell you, however, that while New York State has 9.9 of the population of United States, it has more than 16.7 per cent of the insane of the United States; but what has that to do with this?

The State Hospital Commission through its New York office removed from Bellevue last year 95 people without their being committed to a State institution. Nevertheless there were removed by the same means and from Central Islip and Manhattan during that same period, 386 all of whom had previously passed through the observation ward of Bellevue Hospital. Of these, 154 were removed to other states. Somebody slipped a cog. Why were they not all removed before they ever got in the hospitals; either the State Hospital Commission's office and the people who did the job or else Bellevue failed,—I won't say who it was, but it was not the State Hospital Commission's office. I want to say right here, and now, if you don't embrace this opportunity to combine the observation ward and commitment of the insane with this scheme, with this psychopathic hospital, you have lost a golden opportunity to save the State of New York millions of dollars.

The State of New York formerly said who of the foreign-born should enter the State. It made them pay a head tax; it also had a health officer who could debar people from coming in. It was finally found desirable to take this authority away from the State of New York because of conflicts of authority. The Federal Government very properly controls the matter now; the same argument applies to the relations of the State and City.

It is very embarrassing indeed, for the State Hospital Commission to receive a letter from the State of New Jersey or from the Commonwealth of Massachusetts, saying "why did you send that man over here; a resident of the State of New York? From Bellevue you brought him over to New Jersey or Massachusetts." We have no authority over Bellevue so we cannot answer. They say; "it is a very funny thing; you kick when we send men from here without authority, why do you let Bellevue do that?" It happens every day. It is a very embarrassing thing to have some one say: "I am not going to have my brother deported, they told me up to Bellevue to pay for him for three years and then he would be beyond the five year limit and you could not deport him." Do you know in the interest of cure, treatment and justice, it is a disgraceful thing to combine alcoholic cases and mental cases in one ward. People who are being sent to Bellevue for observation are put in with alcoholic cases. A representative of my office told me yesterday that on Monday morning he found of the admissions in Bellevue there were sixteen alcoholic cases. There were thirty-two admissions and sixteen of them were alcoholic. It is not right. We go down there, wanting to find out about these people. We want to find out if they belong in New York. Nothing is on the card to show. That is the reason they get in Central Islip and Manhattan. I say now it is your golden opportunity to combine all.

The CHAIRMAN: Any further discussion? I assume Dr. Smith's shore dinner is waiting, and it is considerably past the time set for the dinner. If there is no further discussion, we will pass to the next order of business.

Reports of Committees. Dr. Ryon will present the report of the Committee on Resolutions.

Dr. Ryon submitted the following resolutions on the death of Mr. Brown:

> WHEREAS, death has removed from our midst our fellow member, Mr. E. Lyman Brown, who for over ten years was an active Manager of the Hudson River State Hospital, and
>
> WHEREAS, Mr. Brown had, by his genial personality, sterling integrity and his devotion to duty, won the affection of all associated with him, Therefore be it,

RESOLVED: That this Quarterly Conference of the State Hospital Commission with the Managers and Superintendents, held at the Central Islip State Hospital, October 5, 1922, records its sense of personal loss in the death of Mr. Brown whose devotion to the hospital with which he was connected was a shining example to us all, be it further

RESOLVED: That the Conference extends to his widow and daughters, its deep sympathy in their bereavement, and be it further

RESOLVED: That these resolutions be spread upon the minutes of the Conference and that copies thereof be sent to the members of his family.

The resolutions were unanimously adopted.

The CHAIRMAN: The Committee on Training Schools has a report to present.

Dr. Ryon submitted the following report:

To the Commission and Members of the Conference:

The Committte on Nursing desires to present the following report:

At a meeting of the Committee, held on June 30, 1922, in New York City, the following recommendations were adopted:

It was recommended that the training school schedule made out for the coming year should follow the Syllabus given in the Bulletin No. 670 of the University of the State of New York, namely, Course of Study and Syllabus for the Guidance of Nurse Training Schools.

It was suggested that each hospital which affiliates with a general hospital request such hospital to see that each nurse has the following practical experience:

Medical wards	2 months
Surgical wards	2 months
Diet kitchen	1 month
Operating room	2 months
Obstetrics	2 months
Pediatrics	2 months

This course, covering eleven months, would leave one month for

period of vacation. Class instruction should also be given at the general hospital as follows:

Advanced nursing procedures	24 hours
Medical nursing	16 hours
Surgical nursing	16 hours
Diet in disease	8 hours
Obstetrics	16 hours
Pediatrics	16 hours

An examination should be required following each course, both practical and class instruction. Arrangements should be made to send nurses to the general hospitals after twelve months. Where courses are to be given at the general hospitals, it is recommended that arrangements be made to send the students in groups, one group on September 1 and one on January 1. In cases of smaller classes, one group may be sent on either date.

The Committee also recommends that, where there are general hospitals in the vicinity of the State hospitals, a meeting be held with the principals thereof and arrangements be made with them whereby the classes may be united and take up the intensive four month preliminary instruction, given on Page 9 of the Bulletin, above referred to. This would simplify the work of the first year very much.

The Committee also recommends that arrangements be made by the Commission in the coming Budget for assistant principals of training schools, especially in hospitals where no arrangements can be made with the hospitals in the community for the joint work in the four months preliminary instruction.

The Committee has recommended that the entrance examinations for the training schools be held this year on September 5 and that the didactic lectures of the schools begin on September 15.

The examination for entrance to the training schools was held on September 5 and 210 candidates successfully passed and entered the junior classes. These were divided as follows:

Binghamton	13
Brooklyn	15
Buffalo	17
Central Islip	19
Gowanda	10
Hudson River	22

Kings Park	17
Manhattan	27
Middletown	11
Rochester	11
St. Lawrence	38
Utica	9
Willard	1
Total	210

The CHAIRMAN: It is the pleasure of the Conference that this report be adopted so far as relates to the recommendation of a standard course of instruction to be generally adopted by the hospitals?

Dr. HARRIS: I move the adoption of this report as stated by you.

The CHAIRMAN: The next order of business is Unfinished Business. I believe there is no unfinished business to come before the Conference. We will pass to New Business.

Dr. GARVIN: I listened with great admiration and interest to the various papers of the day, especially those relating to the establishment of the Psychopathic Hospital in New York City. I think that this conference should go on record as to what in its opinion should be done by the coming Legislature in the matter of securing funds for the erection of the building and selection of the site. From what I learn of the attitude of the City authorities, we are not going to get any assistance from them, at least until the Bellevue Psychopathic scheme is put through. It, therefore, devolves upon us, as representatives of the State Hospital System, to urge the Legislature to appropriate money for the site immediately and also funds for the erection of the building.

The CHAIRMAN: I believe that is in the form of a motion.

Dr. HARRIS: I suggest that a committee be appointed to work with the State Hospital Commission on this matter. A Legislative committee is already in existence. If Dr. Garvin wants to include that in his motion, I move that it be accepted.

The motion was duly seconded and carried.

The CHAIRMAN: There is one matter I wish to bring before the Conference. When Dr. Ryon was medical inspector he was by virtue of his position a member of the board of examiners for medical positions in the State Hospital Service. After becoming superintendent he remained a member of the board so that as the Board

has recently been constituted there have been two superintendents upon it, leaving no vacancy for the medical inspector who under the rules should be a member of it. Therefore, it has become necessary to reorganize the board; not alone that the medical inspector may become a member but that there may be one member to represent the criminal hospitals as hereafter eligible lists will be used for both civil and criminal hospitals without distinction. The re-organized board of examiners will, therefore, consist of Dr. Kieb, superintendent of Matteawan State Hospital, and by virtue of the positions they occupy, Dr. Ross, medical inspector, Dr. Kirby, director of the Psychiatric Institute and Mr. Steven, chief examiner of the Civil Service Commission. There thus remains a single position to be filled by a representative of the superintendents of the civil hospitals who under the rules should be elected by this conference.

Nominations for such representative are now in order.

Dr. Ashley: I would like to nominate Dr. Wagner of Binghamton as the representative.

Dr. Wagner: I would like to nominate Dr. Ryon. He has had long experience in this position and I would be glad to have Dr. Ryon represent me and represent the entire hospital system.

The Chairman: There are two nominations. Any other nominations, I suppose a vote by ballot would take considerable time. If we had but one nomination it would be unnecessary to vote by ballot.

Dr. Wagner: I would like to withdraw my nomination.

The Chairman: The withdrawing of Dr. Wagner clarifies the situation. There now remains before us the single name of Dr. Ryon to represent the superintendents on the Examination Committee.

Dr. Ryon was unanimously elected to represent the superintendents on this Committee.

The Chairman: The Civil Service Commission has also at the request of the State Hospital Commission rendered a ruling with which you should all be familiar, and which I think will tend to correct an undesirable situation. There is reason to believe that some of the pathologists and perhaps some of the clinical directors have felt that the pathway for promotion was somewhat dark as compared with that of the men occupying administrative positions. I am advised that the Civil Service Commission will make the

positions of first assistant physicians, pathologists and clinical director interchangeable. They have all heretofore ranked the same in theory and will hereafter rank the same in fact so far as civil service regulations are concerned. Transfers between these three positions will be allowed without further examination and by reason of the ruling pathologists and clinical directors will have just as good a chance as the first assistant physicians, to secure promotion, other things being equal. It would seem that thus both pathological and clinical careers will be rendered a bit more attractive.

In connection with civil service regulations there is another matter about which I would like to speak so every one may be familiar with the attitude of the Commission in regard to it. I refer to a practice which has been rather common in the past but which is perhaps, not so common now; the practice of men relatively low in rank on eligible lists seeking to secure waivers from men standing higher on the civil service lists. The Commission believes the practice is subversive of the whole intent of the Civil Service Law. If a man secures a good place on the civil service list, it would seem he should receive first consideration without being asked to waive the advantage of the position secured through his own efforts. I recognize the fact there is such a thing as institutional loyalty,—a desire to promote a man in the institution where a vacancy exists and of course, such promotion is proper if a candidate secures a position sufficiently high to render it possible to consider him. However, loyalty to the institution should not over-shadow the larger loyalty to the service. A man in a smaller hospital certainly has not the same chance for promotion as a man in a larger hospital, if waivers are sought in the interests of a man in the larger institution where a vacancy may occur. The service should be regarded as a whole and vacancies filled no matter where they may occur by appointment from one of the first three actually appearing at the head of the eligible list. Only then will candidates in the smaller hospitals have the same opportunity for promotion as those in the larger hospitals. It is the belief of the Commission that any departure from the letter of the law violates its spirit and tends to destroy the morale of the service. It emphatically disapproves of the practice to which reference has been made.

Dr. Potter: I believe it is customary, at least etiquette, when two men run for office for the defeated candidate to rise and move

the unanimous election of his opponent. The Conference will remember that they were invited to Gowanda for this meeting, but the invitation was not accepted. I am rising to move the unanimous adoption of a resolution to the effect that the Commission made a very wise decision in coming to Central Islip instead of Gowanda and thanking the Board of Managers, Dr. Smith and his staff for the entertainment we have received and also for what is in store for us.

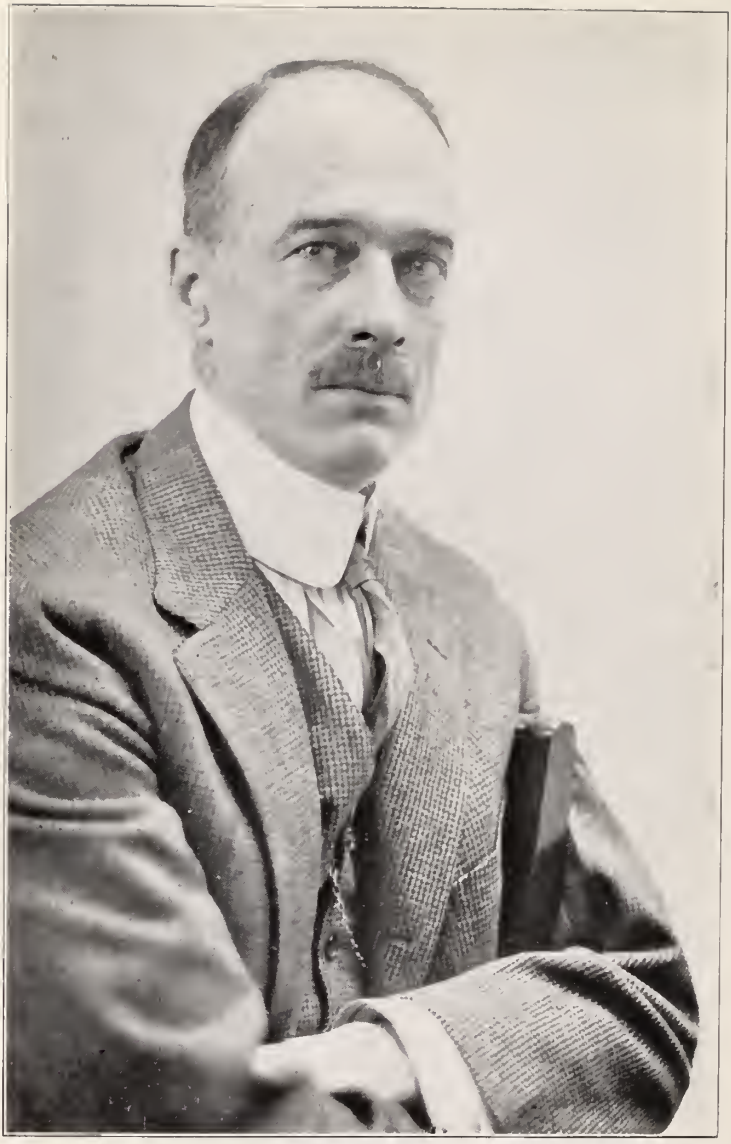
The motion was duly seconded and carried.

Dr. KIRBY: I would like to move that the Conference express appreciation and thanks to the gentlemen we have with us today on the program.

The motion was duly seconded and carried.

On motion the Conference adjourned.

LEWIS M. FARRINGTON,
Secretary of the Conference.



CYRUS E. JONES

CYRUS EMORY JONES

Cyrus Emory Jones, State Hospital Commissioner, merchant, manufacturer and financier, of the city of Jamestown, died on the morning of October 13, 1922, at St. Vincent's Hospital in New York, after a week's illness with pleurisy followed by pneumonia. The announcement of his death was a great shock to the officers and employees of the State hospital system, most of whom had not heard of his illness. Mr. Jones was keenly interested in the problem of the care of the mentally diseased, and during his short term as Commissioner, did all in his power to advance the interests of the State hospital system.

Mr. Jones was born in the town of Ellicott, Chautauqua County, March 16, 1863. When he was fifteen years of age his parents moved to Syracuse. After living there two years he went to New York City and entered the employ of Charles E. Bentley, a manufacturer and importer of fancy goods. Mr. Jones became manager of the concern within two years and later a member of the firm. He carried on a successful business in New York for seventeen years and then disposing of his interests returned to Jamestown. He purchased a fine residential property in the town in which he was born and resided there to the time of his death, taking an active part in the business, social and political life of the community. Shortly after his return to Jamestown, he purchased an interest in the Maddox, Bailey Company which later was incorporated as the Bailey, Jones Company. In 1901 he was one of the incorporators of the Post Publishing Company and in 1906 of the Jamestown Table Company. Later he took a prominent part in the reorganization of the Art Metal Construction Company and as chairman of the executive committee has placed it at the head of Jamestown's industrial concerns. In 1902 he became associated with William S. Bailey and Dr. John H. Wiggins and in-

corporated under the laws of the State of New York the Chautauqua School of Nursing, with general offices in Jamestown, for the training of nurses through correspondence methods.

Mr. Jones has served as one of the directors of the Allied Real Estate Company of New York City; president of the Manufacturers' Association of Jamestown, of which association he was a member since its formation; and vice-president of the Allen Square Real Estate Company. He was interested in Kansas properties and was one of the incorporators and builders of the Coffeeville & Independence Traction Company in the southern part of the state. He had a fine farm of 120 acres on Chautauqua Lake, opposite the grounds of the Chautauqua institution, and a beautiful city home on the Lakewood Road, consisting of five acres of ground laid out with the best possible landscape effects. He was a member of the Jamestown Club, which he served as president.

Mr. Jones was a member of New York State Grange, Patrons of Husbandry, and much interested in that order. Several years ago he erected a beautiful building on the assembly grounds at Chautauqua and presented it to the grange to be used as its headquarters. This building was erected as a memorial to his father, Rev. Emory Jones, and was dedicated August 22, 1903. During the past year Mr. Jones organized the Western Reserve Security Company and became president of its board of directors.

Following Mr. Jones' death, it was revealed that for many years he had helped in a quiet, effective way a large number of students and others needing assistance.

Mr. Jones is survived by his wife, Mary Ella Beebe Jones, four daughters and two sons.

The funeral services held at his spacious residence in Jamestown on October 16 were very impressive. The State Hospital Department was represented by Commissioners Haviland and Richardson, Superintendents Potter and Parsons and Dr. George B. Campbell of Utica State Hos-

pital. There were also present representatives of the State Legislature, the Jamestown Chamber of Commerce and many business organizations. A remarkable tribute to Mr. Jones was seen in the vast assemblage of the people of Jamestown who came to the cemetery to witness the interment.

The following fitting estimate of Mr. Jones appeared in the Jamestown Journal on the afternoon of October 13.

"He was a man of remarkable intellect, and wonderfully clear business vision. But it was not as a business man, nor yet for his interest in politics, that he came to be widely known and loved wherever known. It was the qualities of his heart that appealed to men; his genial and wholesome companionship; his interest in his friends; his desire for service to others, that drew men to him and held them with bands that were hard to break. No circle of which he was a member could be dull or inanimate. His was a most remarkable combination of business ability, earnest endeavor and good humor, and no man could come into touch with his wholesome friendship without a feeling of appreciation for the privilege."

DEATH OF GEORGE E. DUNHAM

Mr. Geo. E. Dunham, president of the Board of Managers of the Utica State Hospital, died at his home in Utica on October 29, 1922. Mr. Dunham had a unique record of service as a manager having been appointed by Gov. David B. Hill in 1887; his association with the hospital thus begun was not broken until his death.

At a special meeting of the Board of Managers held on October 29, the following minute was adopted:

"The Board of Managers and Superintendent of the Utica State Hospital have come together tonight without the member who has presided at their councils for many years and has never missed a meeting unless necessity compelled it.

"Geo. E. Dunham was faithful in the discharge of all his many duties but in none more than which concerned the patients whose diseased minds made them an object of his especial care.

"Elected to the Board of Managers in April, 1887, he had for more than 35 years continued his valued services with a concentration and thoroughness which have seldom, if ever, been equalled in the annals of the State hospital service.

"No detail which concerned the progress of the hospital was so small as not to attract his notice; no patient was so unimportant as not to have his personal attention, if desired.

"To successive members of the Board of Managers his services have been an inspiration; his presence a pleasure, and his friendship one of the choice experiences of a lifetime.

"In the midst of a busy and useful life he had laid down its manifold duties and entered his well earned rest.

"The Board of Managers sorrows most of all that its members shall see his face no more, and records its respect

for his character, its high estimate of his work, and its love for their friend in such large measure as words are inadequate to express.

"They extend to his bereaved widow their deepest sympathy, with the assurance that they share her sorrow in no ordinary way and would gladly bear part of the heavy burden which has been laid upon her.

"They resolve that this minute of appreciation and sympathy be sent to her with their affectionate regard; and be made part of the hospital records.

(Signed for the Board)

Edward H. Coley, *Secretary.*"

NEWS AND COMMENT

NEWS ITEMS

—Mr. Benjamin Malzberg, of New York City, was appointed assistant statistician in the Bureau of Statistics October 20, 1922.

—Dr. A. J. Rosanoff, former clinical director of Kings Park State Hospital, has opened an office for private practice in neuropsychiatry at 518 Marsh-Strong Building, Los Angeles, California.

—Dr. John T. Twohey, who had been physician-in-charge of Providence Retreat for the past twenty-five years, died at his home in Buffalo on October 29, of heart disease at the age of 61 years.

—That patients on parole from State hospitals are entitled to vote in this State is the conclusion arrived at by the Attorney-General in an opinion submitted to the State Hospital Commission, on October 25, 1922.

—Dr. Humphries' Hospital at Mamaroneck, N. Y., was licensed by the Commission as a private institution for the care and treatment of patients with mental disease on August 29, 1922. The capacity of the institution is limited to eleven patients.

—William T. Louden, proprietor of Kniekerbocker Hall, a licensed institution for the care of the insane at Amityville, Long Island, N. Y., died suddenly on August 16, 1922. A new license for the operation of the institution was granted, on September 12, to Dr. John F. Louden, brother of the deceased.

—At the request of Hon. Mark Graves, Research Director, Board of Estimate and Control, the State Hospital Commission has appointed the following personnel committee to represent the department in conferences on reclassification and standardization of positions: Lewis M. Farrington, secretary; Horatio M. Pollock, statistician, and Fred W. Kyte, auditor.

—William J. Nolan, assistant statistician in the Bureau of Statistics, was transferred to the position of supervisor of machine tabulation in the State Health Department, October 1, 1922. Mr. Nolan entered the service of the State Hospital Commission in 1914 to assist in the preparation of the Commission's exhibit at the Panama-Pacific Exposition. The following year he was appointed assistant statistician from the civil service eligible list.

—Attorney-General Newton has ruled that a voluntary patient who leaves a State hospital without giving ten days notice to the superintendent may be again admitted on his original application, but the superintendent of the institution is under no obligation to receive him. Leaving without due notice constitutes a breach of the patient's contract, and it is discretionary with the superintendent whether the contract is to be held valid on the patient's return.

—The State Hospital Commission has appointed the following committees:

Committee on Personnel in State Hospitals, Dr. Richard H. Hutchings, chairman, Dr. William C. Garvin, Dr. George H. Kirby.

Committee on Medical Work in State Hospitals, Dr. George H. Kirby, chairman, Dr. William L. Russell, Dr. John R. Ross.

The former committee has sent out a questionnaire to State hospitals of other states relative to personnel problems. The latter committee is making a survey of the medical treatment of patients in the State hospitals of this State.

—The thirteenth annual meeting of the National Committee for Mental Hygiene was held at the Pennsylvania Hotel, New York City, November 9, 1922. Addresses were made by Dr. Frankwood E. Williams, medical director; Dr. Walter B. James, president; Dr. Haven Emerson, and Professor Elton Mayo. The detailed reports submitted by the various departments of the Committee show that its work is greatly expanding in scope and influence. The following officers were re-elected:

Dr. Walter B. James, President
Charles W. Eliot, Vice President
Dr. Bernard Sachs, Vice President
Dr. William H. Welch, Vice President
Otto T. Bannard, Treasurer
Clifford W. Beers, Secretary

—Dr. Frankwood E. Williams has been appointed medical director of the National Committee for Mental Hygiene to succeed Dr. Thomas W. Salmon, who resigned in January to become professor of psychiatry at the College of Physicians and Surgeons, Columbia University.

Dr. Williams is a graduate of the University of Wisconsin and of the medical department of the University of Michigan. After serv-

ing as resident physician in the State Psychopathic Hospital of the University of Michigan, and as executive officer and first assistant physician of the Boston Psychopathic Hospital, Dr. Williams became medical director of the Massachusetts Society for Mental Hygiene. From this position he was called to the service of the National Committee for Mental Hygiene on January 1, 1917. During the war Dr. Williams served as assistant and acting chief in the Division of Neurology and Psychiatry in the office of the Surgeon General. Upon entering the service he was commissioned as captain but was later promoted to major and lieutenant-colonel.

—Dr. Stephen Smith, former State Hospital Commissioner and for many years a leader in health and social work in this State, died in Elmira, August 26, 1922, at the advanced age of 99 years.

In 1853, Dr. Smith became editor of the New York Journal of Medicine and for over 50 years from that time he occupied a very prominent place in the medical field. In 1860 he became editor of the American Medical Times, and in 1863, professor of anatomy in Bellevue Hospital. In 1872 he was elected first president of the American Public Health Association. He was appointed Commissioner of the New York Board of Charities in 1881, and in the following year became State Commissioner of Lunacy. During his six years of service in the latter position, he was instrumental in improving the care of the insane and the first training school for nurses in State hospitals was established upon his recommendation. In 1893, he again became a member of the State Board of Charities and continued to serve in that capacity until 1918.

Dr. Smith was a versatile writer and published several books and many magazine articles. His best known works are, "New Book of Surgical Operations," "Principles and Practices of Surgery," "The City That Was," and "Who Is Insane."

—Clifford W. Beers, organizer and secretary of the National Committee for Mental Hygiene, was given the honorary degree of Master of Arts by Yale University at the commencement exercises held last June. Professor Phelps gave the following tribute to Mr. Beers in introducing him for the degree:

"Clifford Whittingham Beers—A graduate of Sheffield Scientific School twenty-five years ago. His life has been filled with spiritual adventures. He is the author of a book apparently destined to become a classic, A Mind That Found Itself. In this, with un-

matched eloquence of sincerity, he has described his terrific experiences in that obscure border-land beyond the bounds of sanity. On his return to the world of causation, instead of trying to forget his sufferings, he determined to use them for the benefit of mankind. He grasped the nettle Danger and plucked the flower Safety. Besides the extraordinary influence of his book, both in the field of literature and of human helpfulness, Mr. Beers has labored incessantly for the cause of mental hygiene. He is determined that people shall not forget those who have forgotten their own names. No explorer on land or sea has shown more inflexible courage than has Mr. Beers in penetrating beyond the frontiers of orderly thought.''

—The following appointments to the position of chief occupational therapist have been made by the State Hospital Commission:

Miss Laura Miller at Brooklyn State Hospital. Miss Miller is a graduate of the art and manual training course of Mechanics Institute, Rochester, and has had special training in occupational therapy at Chicago State Hospital. She has also had several years of successful experience as a teacher of art.

Miss Sarah L. Kelley at Central Islip State Hospital. Miss Kelley was trained in the Boston Sloyd Training School and Teachers' College, New York City, and for some time past has been employed as a teacher of occupational therapy in the United States Public Health Service.

Miss Eloise Palmer Finley at Gowanda State Hospital. Miss Finley has had successful experience in charge of the occupational therapy department at the Sheppard & Enoch Pratt Hospital at Towson, Md.

Miss Helen Ryce at Hudson River State Hospital. Miss Ryce has been employed in the occupation department of the Hudson River State Hospital since November 1, 1920. She had previously served at Bloomingdale Hospital, White Plains, N. Y.

Miss Belinda Wright at Manhattan State Hospital. Miss Wright has had charge of occupational therapy at this hospital for several years.

—At the invitation of Director Steuart, of the Federal Census Bureau, a conference on the scope of the census about to be taken of the insane and feebleminded throughout the United States was held in the office of the National Committee for Mental Hygiene on

November 3, 1922. Those present included the director and two statistical experts of the Federal Census Bureau, representatives of the Committee on Statistics of the American Psychiatric Association, the American Association for the Study of the Feebleminded, the American Prison Association, and the American Institute of Criminal Law and Criminology, the medical director and statistician of the National Committee for Mental Hygiene, and the statistician of the State Hospital Commission. Schedules for taking the next Federal census of patients in institutions for mental disease and mental defect were submitted by the statisticians of this Department, and the National Committee for Mental Hygiene, and with slight modifications were adopted. This action will result in greatly improved national statistics of the patients of these institutions, inasmuch as the standard classifications of mental disease and mental defect will be used for the first time by the Federal Census Bureau, and readmissions and transfers will be separated from first admissions.

—At a special meeting of the State Hospital Commission held at the Gowanda State Homeopathic Hospital, October 16, 1922, the following resolutions relative to the death of Commissioner Jones were adopted:

> WHEREAS, The State Hospital Commissioners have received with grief the news of the death of their associate Commissioner Cyrus E. Jones, in New York City on the 13th day of October, 1922, and,
>
> WHEREAS, Although Commissioner Jones had spent only about one and a half years in the work of the Department, he made his impress upon its business methods because of his broad and varied business experience and connections. He moreover showed his interest in the humanitarian side of the work, his sympathy for the unfortunate insane being displayed in manifold ways, and especially in his interest in and efforts to develop on a larger scale, the occupational therapy work in the State hospital service, and,
>
> WHEREAS, He won the esteem of his associate commissioners and all departmental subordinates with whom he came in contact by his courage, his integrity, his wide knowledge of public and business affairs and his engaging personality, it is therefore hereby,

RESOLVED: That we, his fellow commissioners, hereby record our grief and our sense of loss, both official and personal, at the untimely death of Commissioner Jones. We shall miss his valued counsel and his genial fellowship at our meetings. We tender our sincere condolences to his widow and the members of his immediate family in this, their hour of bereavement. And be it further,

RESOLVED: That the Commission hereby orders this resolution recorded in its official minutes and the Secretary is directed to arrange for its publication in the State Hospital Quarterly, and to transmit a copy thereof to the bereaved family.

—Important contracts were awarded by the Commission from June 16, to October 17, 1922, as follows:

June 16, 1922.

For linoleum for new building at Kings Park State Hospital, specification No. 3910, to the Standard Carpet Company, Inc., of New York City, at $8,910.00 for proposal No. 1, and $.50 per square foot for proposal No. 2.

For refrigeration work at Marcy Division, Utica State Hospital, specification No. 3867, to the Mayer Ice Machine and Engineering Company, of Jersey City, at $24,375.00.

For refrigeration work in kitchen at Marcy Division, Utica State Hospital, specification No. 3866, to the American Carbonic Machinery Company, Wisconsin Rapids, Wis., at $5,355.00.

June 26, 1922.

For road building, Marcy Division, Utica State Hospital, to the C. J. Burgess Company, of Marcy, N. Y., at $53,696.00.

July 6, 1922.

For addition to storehouse at Central Islip State Hospital, construction work, specification No. 3679, to Benjamin S. Raynor, Islip, N. Y., for $46,740.00.

For electric work, specification No. 3683, to Arc Electrical Construction Company, New York City, at $2,510.00.

For refrigeration equipment, specification No. 3681, to Shipley Construction and Supply Company, Brooklyn, N. Y., at $29,900.00.

For linoleum, Marcy Division, Utica State Hospital, specification No. 3920, to Bloomingdale Bros., Inc., of New York, at $28,694.74.

August 11, 1922.

For electric elevators, Marcy Division, Utica State Hospital, specification No. 3809, to Warsaw Elevator Company, Warsaw, N. Y., at $8,457.00.

September 11, 1922.

For refrigeration work, Marcy Division, Utica State Hospital, specification No. 3866, to Buffalo Refrigerating Machine Company, of Brooklyn, N. Y., at $5,750.00.

October 17, 1922.

For electric generators at the Central Islip State Hospital, specification No. 3970, to E. W. Tompkins, of Albany, N. Y., at $32,980.00.

BUREAU OF DEPORTATION

The New York City office of the State Hospital Commission is now located at room 1046, Cunard Building, 25 Broadway, New York City.

Dr. Stephen P. Jewett, deputy medical examiner, has resigned to take up work with the Bureau of Children's Guidance. Dr. Amos E. Barton, formerly assistant physician in the psychopathic ward of Bellevue Hospital, has been appointed deputy medical examiner pending the establishment of a civil service list for the position.

NEWS OF THE STATE HOSPITALS FOR THE PERIOD FROM JULY 6, TO OCTOBER 6, 1922

NEW HOSPITAL FEATURES, CONSTRUCTION, ADMINISTRATION, OCCUPATION, ETC.

Binghamton

Contract work covering plumbing and sewage disposal at Orchard House cottage, rewiring of the east and south buildings and the extension of the electric lines to the farm cottages has been completed. The rewiring of the west building is approximately 80 per cent completed.

A new 6-inch cast iron water line has been laid from the main water line in the road leading to Broadmoor to increase the supply at the heating plant in the old electric station.

Electric wiring was installed at Parkhurst cottage and barn and at Orchard House and barn.

Repairs were made to the 8-inch steam line near the laundry and steam traps on the main steam line were overhauled. A new tile floor was laid under the shower bath in ward 62, Fairmount; a new bridge wall was placed in one of the boilers at the power plant; a new floor was laid in the dining room of the South building and alterations were made to the shelving in the pathological laboratory.

Proposals for the reconstruction of the reservoir were received at the office of the State Hospital Commission in Albany, October 11, 1922.

Brooklyn

The construction of the foundation for the administration and staff house has progressed. The walls of the basement are practically completed.

Wards 43, 44 and 47 have been renovated, repaired and painted and are now occupied by employees.

On September 20, 1922, plans and specifications prepared by the State Architect for constructing and finishing of building for the central heating and lighting plant, kitchen and dining room building, buildings for chronic patients (north building and south building) and covered way connecting these buildings with the kitchen

and dining room building and tunnel at the Creedmoor branch of the Brooklyn State Hospital were approved by the Board of Managers, by the State Department of Architecture, by the State Hospital Commission, and by a representative of the Governor's office.

Advertisements for the construction of these buildings have been placed and bids will be opened October 31, 1922, at the office of the Commission in New York City.

The contract for constructing a railroad spur at the Creedmoor branch has been let by the State Hospital Commission, and work is under way.

The contract for excavating for sewage disposal beds at Creedmoor have been placed.

A concrete walk has been placed on the east end of the grounds connecting Clarkson Avenue with building east.

A contract for boring a test well at Creedmoor was awarded to A. J. Connolly of Newark, New Jersey, for the sum of $5,965.

The engineering department installed 350 feet of six-inch sewer pipe at Creedmoor; lowered the six-inch water main from Troy Avenue and installed tees for hydrants for future use.

A clothing room for the use of 500 patients has been completed in the basement of the east building.

Painting has been done as follows: the outside of the reception building; the amusement hall; wards 43, 44 and 47 of the west wing of the old building; three dining rooms and their serving rooms in the building west; the operating room in reception building; the clothes room, bath and dressing rooms in building east, and roof of the garage.

The installation of laundry machinery by the Adams Laundry Machinery Co. has been completed and is under test.

Renovation of the west wing of the old building for employees is nearly completed.

Buffalo

During the past three months, new cement roadways under the east and west archways have been completed.

Steel shelving has been installed in the storeroom to replace the wooden tables.

Alterations in the steward's office have been completed and new steel cabinets installed.

New linoleum has been laid on the floor of the administration building.

The pharmacy has been completely renovated and steel shelving installed.

Central Islip

The acute reception building of the James Group was occupied tentatively by 200 selected patients, thereby relieving the overcrowded condition in the hospital, on August 30, 1922, and thereby, increasing the certified capacity of the hospital from 4,100 to 4,300. This building, when thoroughly equipped and the kitchen built, will be used for the acute reception ward, for which it was intended.

The refrigerating unit is in operation and is giving good satisfaction.

A seventy-five pair telephone wire cable has been stretched from the administration building to the new group and telephone connection is complete.

The street lighting system has been extended to the new building.

Gowanda

The rustic pavilion in the woods west of the main buildings, which was built in 1911 and used for recreational purposes, has been remodeled in accordance with the plans of Mrs. Eleanor C. Slagle, director of occupational therapy for the State Hospital Commission, for an occupational center. This building is 90 feet by 36 feet, and is divided into shops for weaving, toy making, carving, painting, chair caning, brush making and reed basketry. Besides the shops there is also a stock room for raw material and manufactured work and an office for the chief occupational therapist.

Hudson River

The reconstructed dairy barn is practically completed and will be occupied in October.

Cottage 4, formerly occupied by female tuberculous patients has been thoroughly renovated and is to be opened in the near future as a rehabilitation center for female patients with chronic functional psychoses.

A new 8-inch fire main has been laid to central group and Inwood.

Concrete walks have been constructed about the nurses' home.

The nurses' home under construction at the cottage group has been enclosed so that the inside work may go on during the winter.

Kings Park

A portion of the superintendent's residence has been re-shingled.

The rebuilding of the road from the reservoir to groups 2 and 3 is completed.

The first section of the million-gallon reservoir situated on the hill west of the dairy barn is completed and the work on the second half of the reservoir progressed rapidly until recently, when it was held up on account of delay of the railroads in shipping lumber.

Many concrete benches made by the ex-service patients in the occupational and reeducational classes of the Veterans' Bureau have been placed about the grounds of the hospital.

The construction of the new kitchen and dining rooms for the tuberculous group is progressing rapidly.

A portion of the grounds near group 3 has been graded for an athletic field and tennis and volley ball courts. These will be used for the various classes of ex-soldier and civilian patients in physical training.

Wards 16, 55 and 56 are being painted.

A stucco soiled clothes house to replace the old wooden one has been erected in the rear of ward 55.

An outdoor toilet for the patients who use the grove for exercise has been built near building D.

Eleven outside electric lights along the macadam road to group 3 have been added to our outside lighting system.

Much work has been done on ward 45 to make this ward suitable for the care of the male hospital patients now housed in ward 55, which will be used exclusively for ex-service patients as soon as the hospital patients can be removed. A new tile floor has been laid and new toilets installed in the water section. Three additional fire escapes leading from the ward have been built. The ward will be re-painted and ventilating fans installed.

Work has been started on the old power plant which is to be reconstructed and used for an industrial and reeducational center for ex-soldier and civilian patients.

A large Auto-San dish washer has been installed in group one kitchen.

The laying of the linoleum in the new reception building has been held up owing to the failure of the contractors to submit samples of the linoleum to the State Architect as called for in the specifications and the finding by the State Architect's office that the linoleum which had been laid was unsatisfactory.

Middletown

The new east group kitchen is nearing completion but still remains to be equipped and furnished.

The new addition to the storehouse being erected under contract by the T. J. Pardee Construction Company of Bridgeport, Conn., has been completed and accepted.

Preliminary sketches for the reconstruction of the administration building have been received but up to date the detail drawings and specifications have not been received.

The new horse barn 102 feet by 40 feet and the sheds and storage house for farm implements, being erected by the hospital mechanics supplemented by some outside help, have been completed and are now occupied.

All of the old barns which were in close proximity to the nurses' home and buildings occupied by patients have been razed and the materials used in constructing the new barn and sheds.

Rochester

The carriage barn is being renovated for use as an industrial building. This building when remodeled will be used by the shoemaker and mattress maker. These departments have not had sufficient room in the past—the first two having quarters in the Monroe basement and the last named on the second floor of the carpenter shop.

The room used by the dementia præcox school has been re-painted and ward 6 is nearing completion, in addition to outside painting done during the good weather.

The whole hospital has been equipped with new Onliwon toilet fixtures.

St. Lawrence

Installation of the new outside lighting system has progressed to the point where 9 temporary lights are available.

Two new tile silos have been erected and coal shed roof completed.

Three-quarters of a mile of road has been resurfaced, and 1,300 linear feet of cement walk laid.

Two direct connected extractors and two presses have been installed in the laundry.

Six rug and fabric weaving looms have been installed on the wards for re-education work.

Utica

During the last quarter the construction of the new building at Utica to be used for a dining room for nurses and a pharmacy has been continued well toward completion.

Graycroft farmhouse and a barn at Marcy have been entirely re-wired.

The equipment for two temporary kitchens in the chronic buildings at Marcy has been installed.

The conduit for the telephone cable has been completed and the electric light cable laid, using hospital labor.

Progress on the construction of roads at Marcy is to be reported although this is somewhat slow.

Considerable delay in occupying the new buildings at Marcy has been encountered because of the rejection of all of the linoleum furnished by the contractor.

The construction of the storehouse and kitchen for the acute building at Marcy has shown good progress.

Willard

The construction of the tuberculosis hospital to accommodate forty-five (45) men is well along toward completion, and it is hoped that it will be ready for the care of patients by January first.

The hot water systems at the main building and Grand View have been renewed.

NOTEWORTHY OCCURRENCES

Binghamton

On July 17, Hon. Charles J. Hewitt, chairman of the Finance Committee of the Senate, accompanied by secretaries DeMars and Hutchins, visited the hospital and made a general inspection.

On August 10, Mr. Frank R. Utter, superintendent of purchase, and Fred W. Kyte, auditor, visited the hospital.

The Thirty-first Annual Field Day was held on the hospital grounds September 6, and was greatly enjoyed by a large number of patients and many visitors.

The hospital school of nursing was opened on September 14, with an address by the superintendent.

Brooklyn

Patient James Rhodes committed suicide by hanging. He was suffering from general paralysis and had shown no depression and there was no reason to suspect that he contemplated suicide.

A female supervisor has been placed in charge of the male reception service and a female nurse has been placed on the receiving ward of this service, and two female nurses have been placed in the male infirmary ward.

We were visited during the past quarter by the following: L. F. Pilcher, state architect; Charles A. Sussdorff, executive deputy state architect; Dr. C. Floyd Haviland, chairman of the State Hospital Commission; Dr. Llwelyn F. Cox, surgeon of the "SS Hatavania," of British India; Mrs. Eleanor Clarke Slagle, director of occupational therapy; Dr. Arthur A. Curry, superintendent of the Morris Plains State Hospital; Dr. Arthur G. Lane, clinical director of Morris Plains State Hospital; Dr. Augustus S. Knight, member of the Board of Managers of the Morris Plains State Hospital; A. B. Mills and George W. Ritchie, architects, of New Jersey; Dr. Charles G. Wagner, superintendent of the Binghamton State Hospital, and Dr. Frederick W. Parsons, superintendent of the Buffalo State Hospital.

The Medical Committee representing the State Hospital Commission composed of Dr. George H. Kirby, chairman, director of the Psychiatric Institute; Dr. William Russell, superintendent, Bloomingdale Hospital; and Dr. John R. Ross, medical inspector, conducted a survey of the medical work of this institution in August.

The Budget Committee comprising Assemblyman Joseph A. McGinnies, chairman of the Ways and Means Committee, Leon P. DeMars, secretary, and Mason C. Hutchins, secretary of the Senate Finance Committee, visited the hospital July 19. They made a thorough inspection of the hospital and noted the requirements for repairs needed for the coming fiscal year.

In September the nurses organized a "Nurses Club."

Buffalo

On August 1, 1922, Mrs. Walter P. Cooke, Secretary of the Board of Managers, resigned.

The hospital participated in a two weeks' post graduate medical course given by the University of Buffalo by conducting a clinic for the physicians registered.

At a meeting held in the College Club the superintendents spoke in favor of the formation in Buffalo of a local branch of the Mental Hygiene Committee of the State Charities Aid Association.

Central Islip

On July 18, 1922, William H. Muirhead, engineering inspector of the State Architect's Office, visited the hospital in reference to the water supply.

On July 17, 1922, Mrs. Eleanor Slagle, director of occupation therapy, visited the hospital for the purpose of inspecting the occupational work.

On July 22, 1922, Senator Hewitt, Assemblyman McGinnies, Mr. Hutchins, and Mr. DeMars, of the Legislative Budget Committee, visited the hospital for the purpose of considering the allotment for repairs for the fiscal year, 1922-1923.

On August 1, 1922, the training class for field workers of the Eugenic Record Class, Cold Spring Harbor, L. I., held a clinic at this hospital accompanied by Dr. McLaughlin.

On August 3, and 29, 1922, through the courtesy of the Rusy Bohm Post of the American Legion of Islip, 88 ex-service patients were taken to Fire Island, and given a clam bake, and entertained by a baseball game.

On August 29, 1922, Dr. Henry A. Cotton, superintendent of the Trenton State Hospital, Trenton, N. J., visited the hospital.

On August 31, 1922, Dr. George H. Kirby, Dr. Wm. L. Russell and Dr. John R. Ross, a committee, appointed to conduct a survey

of the medical work in the State hospitals, arrived at this hospital. They were joined by Dr. C. F. Haviland, chairman of the State Hospital Commission, on September 2; the Committee remained here until September 3, 1922, and visited every ward of the hospital, and went over the matter of the medical service therein.

Beginning August 31, 1922, all the patients of the hospital, were given the Schick diphtheria test by physicians and nurses from the New York City Department of Health. This work was completed on September 18, 1922.

On September 3, Lewis F. Pilcher, state architect, visited the hospital in reference to present and anticipated construction work.

On September 8, 1922, Dr. A. C. Barton, deputy medical examiner of the Office of Medical Examiners, visited the hospital in reference to deportation matters.

The Quarterly Conference of the State Hospital Commission with the superintendents and the boards of managers, and others was held at this hospital on October 5, 1922, at which there were over 100 in attendance, every hospital being represented, not only by the superintendent but by certain members of its board of managers. Breakfast was served at 10.30 A. M., and the meeting commenced promptly at 11.00 A. M., and lasted until half past three, —the principal topic being, the necessity of a psychopathic hospital in the City of New York.

After the meeting the party adjourned to the South Side to a Shore dinner held at 4.00 P. M.

Gowanda

On October 1, 1922, the State Hospital Commission appointed Miss Eloise Palmer Finley of Towson, Maryland, chief occupational therapist at this hospital.

Visitors during the period included Assistant Commissioner George E. Hogue of the Department of Farms and Markets; Hon. Joseph A. McGinnies, chairman of the Ways and Means Committee; Mr. E. C. Pooler, inspector of State Institution Farms and Dr. John R. Ross, medical inspector.

Mrs. Florence A. Bement, R. N., was appointed assistant social worker on September 1, 1922.

Hudson River

Commissioner C. Floyd Haviland visited the hospital on July 29, and 30, and with the Medical Committee made a careful survey of the clinical work of the hospital.

Mr. E. Lyman Brown, Manager of this hospital since March 13, 1912, died at his home, Wappingers Falls, Dutchess County, N. Y., on the 15th of August, 1922.

On July 27, Doctors George H. Kirby, William L. Russell and John R. Ross, Committee for the Survey of the Medical Work of the New York State Hospitals, visited the hospital and spent three days in an examination of the clinical work and the medical records.

Hon. Lewis F. Pilcher, state architect, visited the hospital on the 29th of July.

On August 9, Assistant Commissioner of Agriculture, Mr. George E. Hogue and Mr. Charles H. Baldwin, director of the Bureau of State Institution Farms, inspected our farms at the hospital and at Camp Whitman.

On July 1, the State Hospital Commission appointed Miss Helen Ryce as a chief therapist in their occupational division and designated her to this hospital.

Miss Clara Ellsworth was appointed assistant social worker on the 1st of July.

On August 9, and 10, Mrs. Eleanor C. Slagle, director of occupational therapy, visited the hospital and made concrete suggestions regarding the occupational work.

On August 16, Miss Lillian M. Fish of the Veterans' Bureau relieving Miss L. B. Meth took up her duties as federal vocational teacher of the soldiers in the hospital. Miss Meth left on the 20th of August.

On September 6, Mr. Benjamin H. Stasch, federal vocational teacher reported to the hospital. He took the place of Miss Creekpawn who left on the same date.

On August 3, 350 patients enjoyed a sail on the river in the steamer "Seagate." Twenty-one patients were taken on September 1, to the Dutchess County Fair at Rhinebeck.

Dr. Edmund Eastwood of the Veterans' Bureau visited the hospital on September 1.

On October 1, Mr. William D. Rockfeller, superintendent, Albany Hospital, visited here.

Kings Park

Rabbi A. S. Hoffenberg resigned July 10, to accept a pastorate elsewhere. He has been succeeded by Rev. Asias Schechter.

The summer fair and exhibit of the work of the ex-service and occupational-reeducational classes was held in group one from July 18 to 22. Approximately $550 was realized from the sale.

Mrs. August Belmont, a member of the Executive Committee of the Red Cross, visited the Ex-service Unit on July 17.

The following Red Cross representatives, Miss Doughtery, division manager of Washington, and Miss Ella Harris, chief, Medical Social Service, visited the ex-service patients' unit in August to look especially into what might be done by the Red Cross in order to make the living conditions more comfortable and homelike.

On September 11, Miss Edith B. Grubb was appointed assistant social service worker.

On September 9, the Annual Fall Field Day was held on the recreation field. Twenty-two events were run off for the patients and employees. A large attendance of visitors was present. After the patients' supper, Our Lady of Perpetual Help Band, under the charge of Rev. Father Huether of Brooklyn, came to the hospital in a large motor bus and gave a concert for the patients and employees.

Mr. R. Watson, of 32 Fifth Avenue, Brooklyn, donated 3 victrolas for the patients in wards 9, 10 and 13.

Dr. George H. Kirby, Dr. John R. Ross and Dr. Wm. L. Russell, who were appointed as a Committee by the State Hospital Commission to inspect all the State hospitals in order to ascertain the character of the clinical work being done, visited the hospital on August 11, and remained until Sunday evening, August 13.

Mr. Nat Sobel of Keith's circuit gave a vaudeville show in the assembly hall for the patients of the hospital on July 6.

The Stage Women's War Relief Committee has continued to furnish vaudeville shows for the ex-service and other patients of the hospital every three weeks.

Mrs. E. C. Slagle, director of occupational therapy, visited the hospital on July 24, and 25, and again on October 2.

Dr. C. Floyd Haviland, chairman of the State Hospital Commission, visited the hospital on September 3.

The superintendent held a clinic on July 7, for the benefit of

Professor Charles B. Davenport's class in eugenics of the Carnegie Institution, Cold Spring Harbor. On August 3, the class returned to the hospital to do case work on a selected group of patients.

Miss Isabelle M. Whitefield was appointed assistant social worker on July 24.

Mrs. Gladys W. Bergman, assistant social worker, resigned on August 17.

On October 2, Miss Mary E. Marvin reported for duty as chief occupational therapist.

Manhattan

The Budget Committee, consisting of Senator Hewitt, Assemblyman McGinnies and Secretaries Hutchins and DeMars, visited the hospital on July 9, in order to check over the hospital's budget requests for special repairs for the coming year.

The graduating exercises of the training school were held on September 22. Owing to changes made by the educational department from a two-year to a three-year course we had only one pupil to graduate this year.

On September 26, Sir Harry Lauder, under the auspices of the New York Elks' Lodge of New York City, entertained 2,500 patients on the lawn just south of the Verplanck Building. Twelve hundred boxes of candy were distributed among the women patients and attendants, and cigars and cigarettes among the men. This function was enjoyed by the largest number of patients ever assembled at one time at an entertainment.

Middletown

The Legislative Budget Committee including Senator Charles J. Hewitt, and Secretaries Hutchins and DeMars, visited the hospital July 17, 1922.

Mrs. Eleanor C. Slagle, director of occupational therapy, visited and inspected the institution August 2, and 3, 1922.

George E. Hogue, commissioner of agriculture and C. H. Baldwin, director of Bureau of State Institution Farms, visited the hospital and inspected the farm August 25, 1922.

Rochester

On August 4, 1922, a farm bureau meeting was held at this hospital under the direction of Mr. C. H. Baldwin, director, Bureau State Institution Farms, Agricultural Department. There were

thirty-one representatives of the various State institutions in this vicinity present at this meeting.

The hospital was visited by inspectors from various departments. Charles B. Dix, M. E., Dr. John R. Ross and Mr. Everett Countryman, from State Hospital Commission; Wm. J. Bedard and E. Metzger, both from State Architect's Department; E. C. Pooler, Agricultural Department; D. J. Grant, superintendent of industries, Auburn Prison; Frank L. Glynn, industrial manager, New York State Prisons, Albany, N. Y.; Hon. Charles J. Hewitt, chairman of the Budget Committee, and Secretary Hutchins.

St. Lawrence

On July 10, Senator Charles J. Hewitt, and Assemblyman McGinnies of the Legislative Budget Committee and Secretaries DeMars and Hutchins, visited the hospital.

Mental hygiene clinics have been held at Watertown, N. Y., on the third Wednesday and Thursday of each month.

On August 31, the graduating exercises of the Training Class were held at Curtis Hall. A class of six was graduated. The address was made by Mrs. Charles D. Hewitt of Carthage, N. Y., a member of the visiting board of the State Charities Aid Association and formerly a member of the Board of Managers of this hospital.

On September 27, the State Hospital Commission visited and inspected the hospital and was represented by Dr. C. Floyd Haviland, chairman; Commissioner Arleigh D. Richardson and Secretary Farrington. On September 28, the Commission held its annual meeting with the Board of Managers.

On October 3, the St. Lawrence County Medical Society met at Curtis Hall for its annual meeting.

During the quarter the hospital was visited by Dr. Spencer L. Dawes, of the office of the Medical Examiner; Dr. Ira O. Tracy, Veterans' Bureau; Dr. H. K. Ross, superintendent, Eastern Hospital, Brockville, Ontario; Nathaniel Smith and C. Y. Dyer of the Department of Farms and Markets; E. S. Graney, steward, Binghamton State Hospital; Judge Edward C. Whitmyer, of the Supreme Court; John J. Riley, inspector, State Hospital Commission; Mrs. Eleanor Clark Slagle, director occupational therapy; Dr. Walter G. Ryon, superintendent, Hudson River State Hospital; Dr. Eastman, Veterans' Bureau; Dr. C. M. Burdick, superintendent, Dannemora State Hospital.

Utica

The regular monthly clinics have been conducted by Dr. Helmer at Schenectady and Glens Falls. Dr. Cheney has taken over the direction of the weekly clinic at Utica Medical Dispensary and arrangements have been made for the institution of a weekly mental clinic at Syracuse at the Medical School Dispensary.

The Rotary Club of Utica held its luncheon at the hospital on July 28. About 165 persons attended, many of whom visited various parts of the hospital after the lunch.

On September 20, the Kiwanis and Exchange Clubs of Utica, held a luncheon at the hospital. About 115 members attended, and visited the wards of the hospital. Much appreciation was expressed by the members of these clubs for the opportunity to become more familiar with the plans and purposes of the hospital.

On July 13, the hospital was visited by Senator Hewitt and Assemblyman McGinnies.

An extensive exhibit of the occupational and other forms of treatment was sent to the Syracuse State Fair as a part of the exhibit of the State Hospital Commission.

A field day was held for the ex-soldier patients on September 28, with the cooperation of the Utica Chapter of the American Red Cross.

Willard

Hon. Charles J. Hewitt, chairman of the Senate Finance Committee, visited the hospital July 26, and examined the budget for next year.

Mental clinics were resumed at Ithaca, Geneva and Hornell in September, having been suspended for three months during the vacation period.

CHANGES IN THE PERSONNEL OF THE MEDICAL SERVICE

Boltz, Dr. Oswald, was appointed assistant physician in Manhattan State Hospital, September 1, 1922.

Burns, Dr. Maryesther, medical interne in Manhattan State Hospital, resigned September 1, 1922.

Castro, Dr. Herman, was appointed medical interne in Manhattan State Hospital, October 2, 1922.

Cheney, Dr. Clarence O., assistant director of the Psychiatric Institute, was appointed assistant superintendent of the Utica State Hospital to be in charge of the Marcy Division. He assumed his duties September 1, 1922.

Cohen, Dr. Aaron, medical interne in Kings Park State Hospital, resigned August 1, 1922.

Feigen, Dr. Samuel, assistant physician in Manhattan State Hospital, resigned September 25, 1922.

Fritz, Dr. John, was appointed assistant physician in Brooklyn State Hospital September 2, 1922.

Goldsmith, Dr. Thomas B., was appointed medical interne in Kings Park State Hospital August 1, 1922.

Gollick, Dr. William W., was appointed medical interne in Utica State Hospital September 18, 1922.

Hardy, Dr. LeGrand, was appointed assistant physician in Manhattan State Hospital September 6, 1922.

Hulbert, Dr. John R., of Thompson, Ohio, was appointed medical interne in Gowanda State Homeopathic Hospital September 15, 1922.

Johnston, Dr. Julian, was appointed assistant physician in Manhattan State Hospital August 1, 1922.

Lapp, Dr. Chauncey M., was appointed assistant physician in Manhattan State Hospital July 15, 1922.

Lapp, Dr. Shirley, was appointed assistant physician in Manhattan State Hospital July 15, 1922.

Laughlin, Dr. E. Ross, medical interne in St. Lawrence State Hospital, resigned August 25, 1922.

LeSoine, Dr. Louis F., assistant physician in Gowanda State Homeopathic Hospital, resigned September 15, 1922.

Levin, Dr. H. L., was appointed senior assistant physician in Buffalo State Hospital September 1, 1922.

Lupo, Dr. Carl W., was appointed assistant physician in Brooklyn State Hospital August 8, 1922.

Lybyer, Dr. Paul, assistant physician in Manhattan State Hospital, resigned July 23, 1922.

Macaulay, Dr. J. L., was appointed medical interne in Utica State Hospital September 14, 1922.

Maclachlan, Dr. Kenneth L., was appointed assistant physician in St. Lawrence State Hospital September 22, 1922.

O'Connor, Dr. Lillian, was appointed medical interne in Utica State Hospital September 20, 1922.

Pearce, Dr. Marvin G., was appointed medical interne in Brooklyn State Hospital July 19, 1922.

Pindler, Dr. L. A., assistant physician in Central Islip State Hospital, resigned September 11, 1922, to enter private practice in Los Angeles, California.

Reissig, Dr. Arthur J., was appointed assistant physician in Buffalo State Hospital August 1, 1922.

Rosanoff, Dr. Aaron J., first assistant physician in Kings Park State Hospital, resigned August 21, 1922, to enter private practice in Los Angeles, California.

Rubino, Dr. Thomas J., was appointed medical interne in Brooklyn State Hospital July 1, 1922, and resigned July 9, 1922.

Russell, Dr. M. Pearl, was appointed medical interne in Kings Park State Hospital September 4, 1922.

Shockley, Dr. Francis M., assistant physician in Manhattan State Hospital, resigned September 16, 1922.

Silverman, Dr. Barnet, medical interne in Manhattan State Hospital, resigned August 25, 1922.

Tiffany, Dr. William J., pathologist at Manhattan State Hospital, was appointed clinical director in Kings Park State Hospital September 1, 1922.

Travis, Dr. John H., was appointed assistant physician in Buffalo State Hospital August 5, 1922.

Tucker, Dr. Hyman, medical interne in Brooklyn State Hospital, was promoted to assistant physician July 1, 1922.

Tusak, Dr. Ervin, was appointed medical interne in Manhattan State Hospital August 1, 1922, and resigned October 1, 1922.

Voorhees, Dr. Earl W., was appointed assistant physician in Hudson River State Hospital September 1, 1922.

BIBLIOGRAPHY OF OFFICERS OF THE STATE HOSPITAL SERVICE

Brooklyn

Isham G. Harris, M. D., superintendent.

"The Housing of Officers and Employees in a State Hospital." Published in the State Hospital Quarterly, August, 1922.

Hudson River

Walter G. Ryon, M. D., superintendent.

"Occupational Therapy as a Means of Controlling Disturbed Patients." Read at the Quarterly Conference of the State Hospital Commission held in Albany, March 9, 1922.

Kings Park

Wm. C. Garvin, M. D., superintendent.

"Psychological Aspect of Spiritualism from the Standpoint of Clinical Psychiatry." Read at Presbyterian Conference held at Stony Brook, Long Island, August 23, 1922.

St. Lawrence

J. A. Pritchard, M. D., first assistant physician.

"Treatment of Patients in the State Hospitals." Read at the meeting of the St. Lawrence County Medical Society, October 3, 1922.

"Mental Diseases." Course of lectures in clinical psychiatry begun October 5, 1922, to the nurses of the Training Class of the A. Barton Hepburn Hospital, Ogdensburg, N. Y.

Utica

R. H. Hutchings, M. D., superintendent.

Addressed the Rotary Club of Utica at the hospital July 28; address at the opening session of the Central School of Nursing, Utica, September 18; address to the Kiwanis and Exchange Clubs of Utica, September 20.

CLARENCE L. RUSSELL, M. D., pathologist.

"Standardization of the Wassermann Test." Paper read before the Oneida County Medical Society at Rome, October 10.

WILLARD

ROBERT M. ELLIOTT, M. D., superintendent.

"Ancient and Modern Methods in the Care of the Insane." Delivered before the Rotary Club at Watkins, New York, August 31, 1922.

STATE HOSPITAL COMMISSION

C. FLOYD HAVILAND, M. D., chairman.

"How the State May Meet Mental Hygiene Needs Arising Subsequent to School Life." Address at National Conference for Social Work, at Providence, R. I., June 24, 1922.

"Mental Hygiene." Address at First Unitarian Church, Albany, N. Y., September 17, 1922.

HORATIO M. POLLOCK, Ph. D., statistician.

"The Problem of the Unfit." Paper read at International Birth Control Congress, London, England, July 14, 1922. Published in American Birth Control Review for October, 1922.

"The Financial Side of Occupational Therapy." Paper read at annual meeting of American Occupational Therapy Association, September 27, 1922.

"Personnel Relations in State Hospitals." Published in *Mental Hygiene,* July, 1922.

"Alcoholic Psychoses Before and After Prohibition." Published in *Mental Hygiene,* October, 1922, and STATE HOSPITAL QUARTERLY, November, 1922.

BOOK REVIEWS

Mental Diseases—A Public Health Problem. By James V. May, M. D. Richard G. Badger, Boston. pp. 544.

When a new book on mental diseases appears the practical psychiatrist naturally looks for the reason. Dr. May's book needs no apology. It is one of the most timely and useful contributions to the literature of psychiatry in recent years. It is not a comprehensive textbook of mental diseases, but rather, as the author states in his preface, a "preliminary consideration of the subject as a public health problem." It will nevertheless be found of such value to the specialist in mental diseases as well as the student of general medicine that neither can afford to be without it. The time has come when the domain of human behavior is of vital interest not only to the medical profession but to a constantly increasing personnel of social investigators in other walks of life. Ordinary affections or injuries usually affect one or more bodily organs, but mental disease involves the unfortunate sufferer's whole being; it changes his relation to the entire external world and often makes him a pitiable, helpless wreck wholly dependent upon others for all his wants. Students of social conditions and especially social workers, judges and others who are studying human conduct in connection with problems of penology, crime or delinquency or misbehavior from any cause whatsoever will find Dr. May's book of great assistance. It is a lucid presentation of a broad subject, entirely free from the "clutter of terms" found in much of the psychiatric production of the day and is deserving of high commendation for its general literary excellence, as well as its wealth of scientific material.

Dr. May divides his book into two parts. The first part comprising 250 pages in fourteen chapters, is devoted to "General Considerations," and the second part, consisting of 294 pages in eighteen chapters, discusses the "Psychoses." Under General Considerations the first chapter takes up the "Social and Economic Importance of Mental Diseases" and stresses the "necessity of more extensive statistical studies of diseases both mental and physical if the welfare of the community is to be safeguarded and

the future of medical science assured." The author gives a great deal of valuable information gleaned from study of the data available in federal and state reports and concludes the chapter as follows: "The intimate relation between mental diseases, alcoholism, ignorance, poverty, prostitution, criminality, mental defects, etc., suggests social and economic problems of far-reaching importance, each one meriting separate and special consideration. These problems, while perhaps essentially sociological in origin, have at the same time an important educational bearing, invade the realm of psychology and depend largely, if not entirely, upon psychiatry for solution."

Chapters II, III and IV are given to "The Evolution of the Modern Hospital," "Legislation and Methods of Administration" and "The Organization and Functions of State Hospitals." These chapters include much historical matter of general interest but most of which is familiar to psychiatrists, especially in State hospital service. Nevertheless the emphasis laid on many of the details of hospital administration and internal activity will tend to stimulate effort where there is apt to be a tendency to allow opportunities for clinical and pathological research to pass unimproved. In concluding the discussion covered by these three chapters the author says: "It should be brought to the attention of the public that very few states are expending as much as one dollar per day for the maintenance of the individual patient. Modern hospital treatment of the highest type, under these circumstances, is manifestly impossible. The time has come when we should no longer be satisfied with the purely custodial care of mental cases."

Chapter V deals with "The Hospital Treatment of Mental Diseases." A carefully devised scheme of examination and history recording is given, together with an outline of hospital procedure in care and treatment. Special stress is laid on baths, occupational therapy, physical exercise and control of diet. "In a word the modern hospital treatment of mental diseases may be said to consist of a direct personal supervision of the mental and physical hygiene of the patient, supplemented by such specialized therapeutic procedures as may be indicated in the individual case."

Chapter VI reviews the "Development of the Psychopathic Hospital." Exception is taken to the use of the term "Psychopathic Hospital" as applied to the receiving service of a State hospital. This criticism seems hardly warranted when reception buildings

forming a part of our State hospitals are specially designed for the care of acute cases of mental disease, provided with the best attainable equipment, and cared for by trained nurses under the immediate direction of experienced physicians.

Chapter VII discusses the "Mental Hygiene Movement," and Chapter VIII "The Etiology of Mental Diseases." The hope is expressed that the time may not be far distant when those who frame our laws will "provide medical treatment for defective delinquents instead of merely locking them up for the protection of society." In discussing etiology the author finds, in common with other writers, that the "important etiological factors in the production of mental disease are heredity, senility, syphilis, arteriosclerosis, somatic diseases, mental deficiency, epilepsy, diseases of the brain and nervous system, alcoholism, drugs, traumatism and mental stress and shock of various kinds."

Chapter IX is devoted to "Immigration and Mental Diseases." Chapter X to "Mental Diseases and Criminal Responsibility," and Chapter XI to "The Psychiatry of the War." Much valuable and interesting information is given in these chapters. In discussing The Psychiatry of War, Dr. Salmon is quoted as follows: "Contrary to popular belief and to some medical reports published early in the war, no new clinical types of mental disease have been seen in soldiers. There are no war psychoses." Dr. Salmon also found that there were hundreds of men who had not been exposed to battle conditions at all who developed symptoms almost identical with those described as shell "shock," many occurring in the non-expeditionary forces. "The psychological basis of the war neuroses (like that in the neuroses of civil life) is an elaboration, with endless variations, of one central theme,—"Escape from an intolerable situation in real life to one made tolerable by the neurosis." "An important contribution to the discussion as to the etiology of war neuroses was the statement made by Major General Ireland to the Senate Committee on Military Affairs, that of twenty-five hundred cases of shell shock awaiting transportation to the United States, twenty-one hundred recovered within a day or two after the Armistice was declared."

Chapter XII discusses "Endocrinology and Psychiatry." This rather obscure subject is dealt with at considerable length with many citations from authors referred to in copious foot-notes. In Chapter XIII we find an interesting account of the "Modern

Progress of Psychiatry," tracing its history from earliest times. Many advances are recorded, but the epoch-making departure occurred in 1899 when Kræpelin, in the sixth edition of his "Psychiatrie" established manic-depressive insanity and dementia præcox as clinical entities. Chapter XIV covers the history and development of "The Classification of Mental Diseases" and gives in full the classification adopted by the American Psychiatric Association at its meeting in New York City in 1917. This classification has been accepted and adopted by practically every State hospital in the United States, and its use in the preparation of statistics will be of inestimable value in future studies of the forms, causation, etc., of mental disease. The success of the committee of the American Psychiatric Association in securing this desirable result has been largely due to the active co-operation of the National Committee for Mental Hygiene through its bureau of statistics.

The latter half of the volume, comprising nearly three hundred pages, gives a remarkably clear presentation of the psychoses, psychoneuroses and neuroses arranged in accord with the American Psychiatric Association's classification. Kræpelin is followed substantially throughout this part of the book but a wealth of detail from other sources is added, due credit being given to Meyer, Hoch, Southard, Mott, Alsheimer, Dunlap, White, Diefendorf, Paton, Bleuler and others. Of all the psychoses the author looks upon dementia præcox with its high admission rate—twenty-five to twenty-eight per cent of all admissions—its exceedingly unfavorable recovery prognosis, its extreme susceptibility to tuberculosis, and including, as it does, more than half of the population of our hospitals, as the most important form of mental disease with which we have to deal today. Manic-depressive psychoses constitute ten to fifteen per cent of the admissions at Kræpelin's clinic, as in our own hospitals, and may rank second to præcox in importance. Psychoneuroses and neuroses are discussed at length. The author would eliminate much confusion heretofore existing by limiting the term "Psychoneurosis" to "such functional conditions as are clearly due to psychic causes," and the term "Neurosis" to "diseases primarily physical rather than mental in their symptomatology."

Much more might be said in commendation of this interesting volume but space is lacking and the book itself will make a strong appeal to a wide clientele who will need it in their daily work.

WAGNER.

Instinct and the Unconscious. A contribution to a biological theory of the psychoneuroses by W. H. R. Rivers, M. D., D. Sc., LL. D., F. R. S., Fellow and Prælector in Natural Sciences, St. John's College, Cambridge. Second Edition. At the University Press, Cambridge. pp. 277.

This work gives the substance of lectures delivered in the Psychological Laboratory at Cambridge, England, and repeated in the Johns Hopkins Medical College, Baltimore.

The general aim of the book is to put into a biological setting the system of psychotherapy which came to be widely used in Great Britain in the treatment of the psychoneuroses of the war. The war produced on an enormous scale those disturbances of nervous and mental functions which are grouped as psychoneuroses. It was popularly supposed these cases were produced by "shell-shock" yet experience showed that the great majority of nervous disorders of the war were not traumatic in the strict sense, but occurred in profound forms in the complete absence of any physical shock.

Freud's work in relation to psychoneuroses has two main aspects, namely, the conditions or causes of the morbid process and the mechanism by which these conditions produce the manifestations of disease. Freud finds these conditions largely factors derived from the sexual life, but the study of the war cases reveals that the instinct of self-preservation plays the far greater part. War makes fierce onslaughts on the instincts which are rarely touched in ordinary life in modern civilization. These may be called the "danger instincts." The aim of the book, therefore, is to consider the mechanisms of the abnormal mentality in relation to the more normal processes of the animal organism, and especially to the mechanism by which certain parts of experience become so separated from the rest that they are no longer capable of recall to consciousness by the ordinary processes of memory. Psychoneuroses depend essentially upon the abnormal activity of processes which do not ordinarily enter into consciousness, and the special aim of the book is to consider the general biological function of the process by which experience passes into the region of the unconscious. Instinctive processes are held to pass into the unconscious whenever incompatibility passes certain limits.

With Freud, the author holds it is unconscious experiences that contribute to wreck a life. He illustrates this from a case of

claustrophobia in a war-neurosis. Dread of confinement in small spaces had been instituted at the age of four in the sufferer, who had been confined in a narrow passage with no means of escape from a dog by which he was terrified. His mental disturbance came from working in dug-outs, and resulted in producing a state of anxiety-neurosis.

Forgetting is not a passive process, dependent on lack of interest and meaning, or varying with intensity of an impression, but is an active process in which some part of the mental content is suppressed because the meaning and interest are of a kind which arouse pain or discomfort and, if present in consciousness, would set up activities which would be painful and uncomfortable. Active forgetting is thus a protective process or mechanism, one by which consciousness is protected from influences which would interfere with the harmony essential to pleasure or comfort. Thus the memories which disappear in war-neuroses are always of happenings so distressing that the most painful emotions arise when the happenings are recalled.

This process of psychological suppression is next connected with certain physiological processes. Rivers together with Head originated the hypothesis of protopathic and epicritic sensations in the regeneration of a divided nerve. They infer that the protopathic sensory system is of much earlier stage in the evolution of cutaneous sensibility, and the epicritic system of later development. Because of the temporal order of this development, the author holds that the instincts are connected with the protopathic sensitivity, and that in the early years of the life of an individual the sensibilities belonging to this system are suppressed and are superseded by the later epicritic and more efficient mechanism. The suppression of experience belonging to the earlier phases of an individual's history is biologically thus grounded. The argument is directed to show that the process of suppression by which elements of conscious experience pass into the "unconscious" is of the same order as the suppression which takes place on the sensori-motor and reflex levels. Control or inhibition belongs to the essence of nervous activity, and the lesson suggested by the study of sensation and reflex action is that the suppression by which experience becomes unconscious is only a special variety of the process of inhibition, common to every phase of animal life and activity. There is held to be reason for

believing that all kinds of early experience undergo transformations similar to those undergone by protopathic sensibility.

It is found that the emotional or effective experiences are especially liable to be suppressed. But other rather neutral experiences are also involved. The unconscious volition, desire or "wish" of Freud, also plays its part. Feelings are wholly instinctive, and biologically are thus connected with the protopathic system. Affection and instinct are therefore most closely related. Thus, fear is especially connected with the instinctive reaction to danger by flight. The unconscious thus acts as a storehouse of instinctive reactions and tendencies, together with the experience associated with them, when they are out of harmony with the prevailing constituents of consciousness so that, when present, they produce pain and discomfort.

This work is confessedly theoretic. It is based in its biological foundation on a fallacy, if we can trust the more careful researches of Dr. Stanley Cobb, who, as well as others, has shown conclusively that Head's hypothesis of protopathic and epicritic nervous systems is totally unwarranted and is a biological fiction. If this be true, as it seemingly is, then this speculative work is in this particular a romance, and not science. We certainly do find however that the early experiences of life affect our character and determine our mental attitutes far more than was ever before recognized. We acknowledge the facts, but raise a very grave doubt as to this work being a biological grounding of the phenomena.

PAINTER.

The Elements of Scientific Psychology. By KNIGHT DUNLAP, Professor of Experimental Psychology in the Johns Hopkins University. Illustrated. C. V. Mosby Company, St. Louis, publishers. pp. 368.

This work is designed for the specific purpose of introducing the student to the elements of psychology, and of giving him a firm ground on which to build. It accordingly deals with the general problems of psychology only.

While written primarily for college students, the book is also designed to be of assistance to men in various professions who wish to become conversant with the foundations of modern psychology. It represents the general point of view on which rests the psychology

which is being applied in the fields of education, industry, and the arts as well as medicine.

The author of this work defines psychology in what may be regarded as the conventional style of the present; that is, avoiding all metaphysical considerations of the nature of the mind as an entity, it is defined in terms of the mere phenomenal aspects of mental life. In this way mind is regarded as "the totality of conscious adjustments or conscious processes." "Genetically, a person's mind is the total of all the conscious reactions which have occurred since the beginning of his organic life." The fatuity of such a definition of mind is readily seen in the fact that all the conscious reactions of the past can have no existence, for they are past and gone forever. Such a notion of mind is only conceptual, a pure figure of speech which can not be reduced to any definite meaning. The author, nevertheless, is formally at least a bit more charitable toward metaphysical implications than most present day psychologists, since he expressly says "we do not necessarily deny the existence of any of the many things to which the term 'soul' is applied."

In method the author may be said to follow the behaviorist standpoint. He rejects the common notion of introspection altogether. "The term introspection should be used exclusively to indicate observation of one's own body, through the visceral and somatic senses." He holds that no one has as yet succeeded in demonstrating that either the self or consciousness can be observed. Such a position as this is irredeemably puzzling. If our awareness of conscious states and processes is impossible then how can we know the phenomena of the mind at all? It is an effort at a psychology without a soul.

The work of the author, although written from the experimental standpoint, seems to come short in actual experimental results. This may be exemplified in the case of dual cutaneous sensitivity. Following unquestioningally Henry Head he concludes: "It is now known that there are two sets of sensory mechanisms, one the epicritic, functioning for the perception of touch or contact, mild warmth (from 37° to 45° C.), and mild cold (from 37° to 20° C.); the other, the protopathic, functioning for pressure, pain, and the higher intensities of heat and cold (above 45° and below 20° C.). But a complete denial of the foregoing hypothesis has been experimentally demonstrated by Dr. Stanley Cobb of Harvard Medical

College (Archives of Neurology and Psychiatry, November, 1919, pp. 505-517). In clinics of 540 cases in the United States Army General Hospital No. 11, ending April, 1919, he concludes: "A review of experimental and clinical work on cutaneous sensibility indicates that the epicritic and protopathic hypothesis of Head and his collaborators should be abandoned." This conclusion had been advanced by the researches of earlier date by Trotter and Davies, Boring, Stookey and others.

The author gives unusual attention to terminology and rightly argues for a more exact use of terms, of which every psychologist has felt the need; but his suggestions thereon would give us such recondite and unusual terms as to make the science of psychology unintelligible to any except the technical student.

In general the work may be said to be an outline of method in experimental psychology, rather than a detailed treatment of psychological phenomena. The system or order of treatment is unusual. The book will be found suggestive in the treatment of certain special psychological interests and problems.

PAINTER.

The Glands Regulating Personality; a Study of the Glands of Internal Secretion in Relation to the Types of Human Nature. By LOUIS BERMAN, M. D., New York. The Macmillan Company, 1922. 300 p.

Dr. Berman opens his book with a long introductory discussion of the attitudes taken by various investigators, philosophers, theologists, eugenists, physiologists and psychologists—toward human nature. He offers hope to none of these investigators of the behavior of man, except to the physiologist and the chemist, and to them he extends encouragement in so far as their work is concerned with the endocrines. The author says "the most precious bit of knowledge we possess today about man, is that he is a creature of his glands of internal secretion—man is a by product of a number of cell factories, etc.—man is regulated by his glands of internal secretion."

Following the introduction the next five chapters are historical and evolutionary descriptions of the various glands; the anatomical relations and physiological functions are also discussed. One chapter is given to the influence of glands on the physical development;

another to the mechanics of the masculine and the feminine, and one to the rhythms of sex—all of these we pass over to come to the real motive of the book, the influence of the glands upon the processes of the mind and the personality. It might be said that in the physiological discussion of the various glands, the generally accepted theories are not always given and deductions are erroneous. The author takes parts of the theories of others, adapting them in a manner to establish his claims with the reader and omits the conclusions made by the investigator himself from the material studied. Even the anatomical descriptions are presented in an unscientific way and errors are to be found.

It is unnecessary to state that the author finds a nearly, if not entirely, complete solution of personality in the endocrines. Further, to the satisfaction of the author, the problem of the instincts and emotions is cleared of all obscurity.

In Chapter IX—the backgrounds of personality—there is first a superficial discussion of the various theories of the neuroses, with a criticism of certain investigators in that they have not considered in their hypotheses, "the powers of the vegetative apparatus, the viscera, muscles and secreting glands—as originators and determiners of the wish and its adventures." The author goes on to state that the neurosis is an "expression of an unsatisfied vegetative tension; tone and gesture—are direct expressions of the vegetative nervous system—determined by increased outflow of the endocrine secretion;—shell shock—is an uncompensated jarring of the endocrine vegetative mechanism." Phobias, anxiety neuroses, delusions, hallucinations, occur frequently in posterior pituitary overactivity. The recent distressing experiences of three naval officers in a balloon adventure, and the accompanying mal-adjustment of the three may be explained in that one of them was an "adrenal-centered type" as shown by anatomic characteristics, and the excessive instinct of pugnacity exhibited by this man in the period of exhaustion was an adrenal reaction. His behavior illustrated the mechanism of a typical endocrine neurosis.

In the next Chapter X, an explanation of personality and the various types of make-up is undertaken. Personality is the result of the synthesis of the various endocrine forces, and if one gland predominates in the growth and evolution of the individual, a particular endocrine type results; hence, the adrenal-centered, the thyroid-centered, the gonadal-centered, etc. He gives nearly thirty

pages to the description of these types and twenty-five more to the endocrinal analysis of historic personages—Napoleon, Nietzsche, Darwin, Cæsar, Florence Nightingale, Oscar Wilde, to exemplify his types. The space allowed this review will not admit of a full description of the types enumerated by the author. Perhaps the author's statements relative to the failure of certain glands with the resultant reaction will be of more interest to the reader. He states that an adrenal insufficiency is the pathological condition present in the most frequent type of neurasthenia; also a congenital adrenal defect accounts for the chronic high-strung neurotic. The pituitary accounts for two types of personality depending upon the predominance of the anterior or the posterior lobe. Underlying the masculine personality, irrespective of the sex, is a pituitary in which the anterior lobe predominates, the posterior lobe being inadequate. If the post-pituitary is excessive with an insufficiency of the anterior lobe, a feminine personality results, irrespective of the sex. With varying grades of over- and under-growth in these two lobes in the two sexes, many different types of personality are fashioned by the author.

Chapter XII—the applications and possibilities—was approached with hope. It contains, however, few or no applicable possibilities but is filled with hypothetical impossibilities. The author divides the life of the individual into five distinct endocrine epochs—infancy—the epoch of the thymus, childhood—that of the pineal, adolescence—that of the gonads, maturity—that of whatever gland predominates in the endocrine struggle, and finally senility—the epoch in which a general failure of the endocrines sets in. The author believes that by the recognition early in life of the different endocrine types (Dr. Berman states that the thymo-centric type is predictable from the first few months of life) the difficulties arising from an imbalance may be anticipated; it is implied that glandular therapy will correct any faulty balance. It is believed that endocrinal analysis will assist our educators in making the proper selection during their school period, of candidates for careers, and thus prevent vocational misfits.

In the final chapter of the book, the effect upon human evolution, the author would lead one to believe that the answer to the riddle of life is found in the endocrines—"every step of the daily routine or adventure—all phases of happiness and unhappiness are endocrine episodes—the glands of internal secretion tender the clue

to a phase of the puzzle of heredity, adaptation and evolution. A field of investigation is open that would embrace in due time the deliberate control of human evolution."

One must acknowledge that Dr. Berman has made a formidable but curious collection of arguments in his book. It is a hodge-podge of everyones' theories, introduced in part and interpreted to support and affirm the author's hypotheses. These theories are frequently presented without giving credit to the original investigator, and are put forth in such a way that the reader is led to assume that all has emanated from the author. There is little scientific in the book and few or no new *facts* are presented. Though apparently intended for the psychologist, the book through its figurative diction will attract the eye of the lay reader, and it would be impossible for one without understanding to read the book and not find defects in himself, which might cause serious alarm, were it not that he is immediately assured that a remedy may always be found in endocrine therapy. The book may tend to antagonize the general practitioner who scans it or reads the reviews against the entire endocrine problem. The glands of internal secretion have their influence upon the growth of the mind and the development of the personality as they do upon the anatomical formation and physiological life of man but they are not the sole determinants of human behavior as the book would lead one to believe. One cannot see how the book can be called a study, as the author cites no experiments and gives no deductions drawn from his own observations of human behavior. Anyone may theorize and all yearn to point the way to others but actual scientific work, carefully controlled experiments and accurately checked observations of the behavior of man, as viewed from all phases of development, not from the endocrine approach alone, are now needed to unfold the problem of personality. The solution will not be found in the intangible impracticable hypotheses of a "Super-Careerist."

Diseases of the Thyroid Gland. By Arthur E. Hertzler. C. V. Mosby Co., St. Louis. 1922. 244 pp. 106 illustrations.

The author is a surgeon and the book presents in a practical way the surgical pathology, diagnosis, and surgical treatment of goiter. The book does not cover the ground indicated by so comprehensive

a title. Cretinism and myxedema are not described. There is no adequate presentation of our present knowledge of thyroid disturbances in terms of function or pathologic physiology by which the practitioner or specialist can be guided in medical treatment and management of cases. The essential relation of thyroid function to metabolism is not discussed, and basal metabolism is dismissed as merely a laboratory test which is of relatively little value to the experienced surgeon. The importance of considering thyroid diseases from the standpoint of abnormal function is, however, recognized in the last sentence of the brief chapter on etiology and pathogenesis: "Surgeons should remember that the pathology of this organ does not explain all the phases of the disease, and while removal of a part of the diseased gland does most to remove the symptoms, it is fundamentally unscientific and the endeavor should be to discover the fundamental problem in etiology."

The chapter on normal and pathologic anatomy covers fifty-seven pages and is well illustrated by fifty-eight gross and microscopic sections. The classification of thyroid pathology is subject to the criticism that "a proliferation of the cells of preexisting acini producing the projections of papillary formations into the lumen of the gland" is classed as a type of "diffuse adenomatous goiter." Adenoma usually implies the formation of new acini and tumor formation whereas hypertrophy and hyperplasia of the alveolar epithelium of preexisting acini is to be looked on as evidence of a functional disturbance within these acini. The distinction is important because thyroid adenoma is to be correlated clinically with simple hyperthyroidism while hypertrophy of preexisting acini is to be correlated with true exopthalmic goiter, the symptoms of which cannot be adequately explained on the basis of simple hyperthyroidism. No reference is made to the work of Plummer and Wilson in demonstrating this clinical and pathological distinction.

In the preface it is stated that publication has been prompted by a desire to submit evidence "that the activity of the interstitial cells is associated with a definite clinical type of thyroid intoxication." It is not clearly set out in the text just what this evidence is. It is presumed that reference is made to the "interstitial proliferative goiter" or Forme Fruste, in which there is described an abundant proliferation of interstitial cells without much change in the acinal cells. The symptoms are predominatingly nervous, of an indefinite nature, and tend to continue and become worse.

It is difficult for the reviewer to recognize in Forme Fruste a distinct clinical type which can be differentiated on the one hand from early or mild hyperthyroidism of an adenomatous pathology or a beginning exophthalmic goiter, or on the other hand from neurotic states in which disturbance of thyroid function cannot be demonstrated. No evidence is presented to warrant the conclusion that the pathology described is characteristic of this clinical type or phase of thyroid disturbance. The pathology and symptoms described as Forme Fruste are similar to those described by Goetsch under the name of "diffuse adenomatosis."

The chapter on symptomatology details what one is to look for in a patient with a goiter. In the chapter on diagnosis various clinical types are indicated, which are difficult to differentiate. Exophthalmic goiter is merely primarily toxic goiter in which eye signs are present. It is not set out as a distinct syndrome with its own pathology, although the existence of this pathology had been recognized in a previous chapter. The terms primary and secondary toxic goiter, Basedow, Grave's disease, thyrotoxicosis, endemic goiter and adolescent colloid goiter are used without very accurate definition.

Twenty pages, including several useful illustrations, are devoted to goiter in unusual places, and eighteen pages to a helpful discussion of hospital management of operative cases, and post operative complications, while only ten pages are devoted to treatment. Medical treatment and management from the standpoint of the practitioner is not adequately presented.

The chapters on topographic anatomy and surgical technic include several excellent illustrations useful to the practitioner as well as the surgeon.

C. E. GIBBS.

A Psychoanalytic Study of Psychoses with Endocrinoses. By Dudley Ward Fay, Ph. D. Nervous and Mental Disease Monograph Series; Nervous and Mental Disease Publishing Co., Washington, D. C.

This monograph presents essentially the results of a psychoanalytic study of 22 male patients selected from the wards of St. Elizabeth's Hospital because of "recognizable endocrine disorders" with the object of discovering "whether there was any correlation

between certain endocrine disorders and certain psychotic syndromes.'' Other observations on these patients were made by Drs. Lewis and Davies and the results have already been published.[1] In the present volume each case is presented in detail under headings of history; sex life; fantasies; general observations; occupational therapy; physical examination; endocrine diagnosis; results of glandular therapy; observations made four months after the six-months period of special study; and mental diagnosis. The presentation and discussion of the psychoanalytic material in the individual cases is interesting and instructive and makes the book well worth reading. Each case was concluded to be one of ''schizophrenia, or had schizophrenia features.'' The term ''schizophrenia'' is used to denote ''a splitting of the mind by means of which the patient lives in two worlds, one of reality, the other of fantasy.'' Two of the patients were looked upon as showing ''simple schizophrenia without projection'' by which the author denotes that the patient ''indulges his cravings and is at peace with himself.'' Thirteen were classed as ''schizophrenia with projection'' in which the patient ''resists his socially undesirable cravings and refuses to recognize them as originating in himself.'' Three cases were diagnosed as ''schizophrenia paranoid''; a distinction of this last group from the previous one is nowhere defined and the need for such distinction is not indicated. Two patients diagnosed as ''schizophrenia circular'' and one as ''manic-depressive with schizophrenia features'' would be grouped by us, judging from the histories, as dementia præcox. Finally, one case was a defective epileptic.

In order to see whether the percentage of each mental syndrome in our ''endocrine patients corresponded with the percentage among a large group of other psychotics'' the author compared his small group on a percentage basis with the various percentages of the functional groups among the male psychotics admitted to the New York State hospitals in 1917, with the result that his group of endocrine cases shows a comparatively higher percentage of cases of schizophrenia with projection, which type of case he considers comparable to the New York State hospital groups of hebephrenic and catatonic cases; on the other hand in his group the paranoid type had a low incidence as compared with the New York State paranoid group figures. The obvious difficulties of dissimilar terminology, diagnostic attitude, and numbers of cases involved,

1 Lewis and Davies, ''A Correlative Study of Endocrine Imbalance and Mental Disease.'' Journal of Mental and Nervous Diseases, Volume 53, 54, 1921.

make such a comparison quite inconclusive for determination as to whether endocrine disorder is more frequently found in one syndrome than in another.

Presentation of the endocrine features of the cases leaves much to be desired. It is stated that in making the endocrine diagnosis, "not only was the physical condition of the patients examined, but they were subjected to two tests, the sugar ingestion and thyroid feeding tests," but the details of these tests and the results in any case are not given. The diagnosis of "submyxedema," a term which is not defined, was made in 13 cases. In one such patient, for example, the physical examination is reported as showing "short in stature, skin dry and covered with fine flaky scales. Beard very heavy. Hair, male type distribution, very extensive over chest and abdomen. Genitalia normal. Extremities cold and cyanotic. All superficial and deep reflexes markedly hyperactive, but movements are slow and deliberate, though with no suggestion of catatonia. Heart rather rapid." In another case diagnosed "submyxedemia" the report of the physical examination is: "Small type of skeleton. Skin poorly nourished with several scaly lesions on face, neck and back. Slight amount of hair in midsternal region, and submasculine type in genital region. Genitalia normal. Heart rapid. Extremities cold and cyanotic. Reflexes sluggish. Slight tremor of hands." Obviously it is difficult to judge of the type or degree of endocrine disturbances from these reports. Hyperthyroidism was diagnosed in five cases with perhaps more conclusive symptoms but it is not indicated that metabolism estimates were made in any case; one patient had had his psychosis long before signs of thyroid trouble were observed and he is said to have improved when he began to show such signs so that the glandular trouble was concluded by the author to be "compensatory" for his psychosis. Just what this means is not made clear. It is perhaps of interest, in view of the difficulty with the sex life of the patients, and also in view of reports to the contrary of other investigators of dementia præcox, that in no case was a gonadal disturbance believed to be present.

During the six months period of special observation various desiccated glands were apparently fed to the patients; the details are not given. This feeding, however, is said to have "stimulated the patients in almost every case" but the author states "but as time passed, the improvement gradually faded even while treatment was

still being given. After it was stopped the patients returned practically to their former conditions with the exception of those who had previously begun to convalesce." In this connection it is to be noted that the patients were on a special ward with special attention and occupational therapy. Of the results of this latter, the author says that "nearly every patient on the ward seemed to have improved to some extent before the beginning of glandular therapy."

As for the results of psychoanalysis it is stated: "no cure or great improvement can be claimed as due mainly to psychoanalysis in these 22 cases," and also: "although psychoanalytic treatment showed no conspicuous result in this particular group of men, I have seen other psychotic patients in St. Elizabeth's greatly benefited by its use."

On the whole, then, the book may be said to be a part of a most commendable effort to investigate psychic and physical conditions in a group of patients with the object of making possible correlations, and to be an interesting presentation of the psychoanalytic material of the group. It is not considered that the volume, however, contains any essential contribution to the solution of the problems of endocrinology, nor does it aid in the understanding of the relation between the endocrine glands and mental disorder. The fact that the material is presented by a non-medical man may be partially the cause of this. The book is advertised as one that will prove an invaluable aid to students of endocrinology and its possible application to psychiatry. The reviewer has found no distinct evidence that this is true.

CHENEY.

GENERAL STATISTICAL INFORMATION RELATING TO THE INSANE AND THE MANAGEMENT OF THE STATE HOSPITALS

CENSUS OF SEPTEMBER 30, 1922

1. Patient population:		
State hospitals:		
In hospitals, excluding paroles	38,000	
On parole	3,333	
		41,333
Institutions for criminal insane		1,493
Private licensed institutions		934
Total		43,760
Average daily population of State hospitals since July 1, 1922		41,158
Average daily number on parole since July 1, 1922		3,224
2. Capacity and overcrowding:		
Capacity of civil State hospitals		30,684
Overcrowding, excluding paroles:		
Number		7,316
Per cent		23.8
3. Medical service in civil State hospitals:		
Superintendents		13
Assistant superintendent		1
First assistant physicians		15
Pathologists		7
Clinical directors		4
Senior assistant physicians		70
Assistant physicians		41
Medical internes		25
Total		176

Ratio of physicians to patients, excluding paroles:

Including superintendents and internes	1 to 216
Excluding superintendents	1 to 233
Excluding superintendents and internes	1 to 275

Summary of operations of Medical Examiner's Bureau quarter ending September 30, 1922:

	Total	July	Aug.	Sept.
Aliens deported to other countries	96	36	22	38
Nonresidents returned to other states	125	34	50	41
Total aliens deported and nonresidents returned	221	70	72	79

Comparative Statement of Total and Per Capita Cost of Maintenance of Patients in State Hospitals for the Year Ending June 30, 1922

(The per capita cost is determined by dividing the actual cost by the average daily population, excluding paroles)

	All Hospitals 37,398 patients		Binghamton 2,647 patients		Brooklyn 1,427 patients		Buffalo 2,208 patients		Central Islip 5,412 patients	
	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita
Personal service	$5,316,302 76	$142 15	$386,920 26	$146 17	$233,512 11	$163 64	$331,521 28	$150 15	$666,440 19	$123 14
Food	3,108,480 83	83 12	211,136 93	79 76	139,396 11	97 68	196,547 57	89 02	459,619 65	84 93
Fuel, light, power and water	1,499,513 81	40 10	104,261 14	39 39	86,774 61	60 81	59,241 51	26 83	210,330 91	38 86
Clothing	394,712 50	10 55	22,284 60	8 42	13,305 21	9 32	18,193 90	8 24	72,091 90	13 32
Furniture, furnishings and household supplies	760,656 57	20 34	61,947 93	23 40	34,810 99	24 39	51,169 08	23 17	98,600 80	18 22
Medical and surgical care, supplies and equipment	88,047 37	2 35	6,725 25	2 54	4,929 18	3 45	5,074 62	2 30	7,544 06	1 39
Farm and garden	149,549 40	4 00	22,214 08	8 39	4,486 70	3 14	1,432 48	65	11,993 08	2 22
Roads, grounds and walks	30,774 57	82	3,654 11	1 38	385 76	27	3,283 38	1 49	3,877 25	72
General administration	181,487 54	4 85	10,929 27	4 13	12,703 26	8 90	5,136 21	2 33	30,610 57	5 66
Office expenses	73,817 74	1 97	5,312 22	2 01	5,542 99	3 88	5,737 88	2 60	9,207 86	1 70
Traveling expenses	55,834 90	1 49	4,342 05	1 64	929 05	65	1,621 59	73	8,215 18	1 52
Fixed charges and contributions	359,493 38	9 61	18,486 75	6 98	11,426 39	8 01	30,107 69	13 64	50,356 06	9 30
Repairs and alterations	207,110 92	5 54	9,965 68	3 76	15,298 34	10 72	11,561 16	5 24	24,786 11	4 58
Special repairs	230,419 03	6 16	11,383 79	4 30	6,721 16	4 71	21,889 89	9 91	17,002 66	3 15
Grand total	$12,456,231 32	$333 07	$879,564 06	$332 29	$570 221 86	$399 59	$742,521 24	$336 29	$1,670,736 28	$308 71

COMPARATIVE STATEMENT OF TOTAL AND PER CAPITA COST OF MAINTENANCE OF PATIENTS IN STATE HOSPITALS FOR THE YEAR ENDING JUNE 30, 1922—(Continued)

(The per capita cost is determined by dividing the actual cost by the average daily population, excluding paroles)

	GOWANDA 1,202 patients		HUDSON RIVER 3,542 patients		KINGS PARK 4,470 patients		MANHATTAN 6,819 patients		MIDDLETOWN 2,118 patients	
	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita
Personal service	$205,949 38	$171 34	$513,487 84	$144 97	$613,110 66	$137 16	$791,780 96	$125 30	$313,636 19	$148 08
Food	85,353 36	71 01	315,559 22	89 09	451,151 04	100 93	541,741 69	85 73	171,512 12	80 98
Fuel, light, power and water	70,943 78	59 02	180,606 78	50 99	145,655 24	32 59	200,028 79	31 66	68,212 78	32 21
Clothing	23,767 75	19 77	25,301 56	7 12	54,698 24	12 24	69,049 39	10 93	20,032 89	9 46
Furniture, furnishings and household supplies	35,006 02	29 12	71,179 42	20 10	71,338 50	15 96	120,893 94	19 13	43,540 35	20 56
Medical and surgical care, supplies and equipment	4,026 60	3 35	7,516 76	2 12	8,995 13	2 01	14,424 28	2 28	4,100 29	1 94
Farm and garden	12,830 87	10 67	15,197 99	4 29	7,005 58	1 57	5,877 01	93	12,542 87	5 92
Roads, grounds and walks	1,286 09	1 07	2,813 22	79	4,674 22	1 05	2,048 74	32	1,842 50	87
General administration	8,344 23	6 94	18,272 10	5 16	15,670 05	3 51	36,823 16	5 83	5,305 12	2 50
Office expenses	4,740 00	3 94	6,177 79	1 74	7,065 79	1 58	12,148 52	1 92	3,132 79	1 48
Traveling expenses	3,176 66	2 64	7,926 95	2 24	11,086 81	2 48	2,429 98	38	1,634 36	77
Fixed charges and contributions	14,895 80	12 39	40,991 73	11 57	35,114 02	7 86	31,265 49	4 95	21,103 97	9 96
Repairs and alterations	9,997 64	8 32	29,288 30	8 27	24,961 87	5 58	24,734 17	3 91	8,148 77	3 85
Special repairs	19,250 55	16 02	49,749 81	14 05	17,996 55	4 03	57,874 25	9 16	.....	.....
Grand total	$499,568 73	$415 61	$1,281,972 47	$361 93	$1,468,523 70	$328 53	$1,911,120 37	$302 44	$674,745 00	$318 58

COMPARATIVE STATEMENT OF TOTAL AND PER CAPITA COST OF MAINTENANCE OF PATIENTS IN STATE HOSPITALS FOR THE YEAR ENDING JUNE 30, 1922—(Concluded)

(The per capita cost is determined by dividing the actual cost by the average daily population, excluding paroles)

	ROCHESTER 1,642 patients		ST. LAWRENCE 2,255 patients		UTICA 1,716 patients		WILLARD 2,440 patients	
	Total	Per capita	Total	Per capita	Total	Per capita	Total	Per capita
Personal service	$261,799 61	$159 44	$313,397 36	$138 98	$294,444 64	$171 59	$390,299 28	$159 96
Food	136,628 07	83 21	132,984 92	58 97	106,919 97	62 31	161,930 18	66 36
Fuel, light, power and water	65,063 47	39 62	136,685 95	60 61	79,637 64	46 41	92,071 21	37 73
Clothing	17,022 15	10 37	20,649 44	9 16	13,895 86	8 10	24,516 61	10 05
Furniture, furnishings and household supplies	38,834 38	23 65	44,872 53	19 90	43,767 35	25 51	44,695 28	18 32
Medical and surgical care, supplies and equipment	4,945 39	3 01	12,276 89	5 44	4,288 61	2 50	3,200 31	1 31
Farm and garden	2,514 55	1 53	17,699 20	7 85	18,031 65	10 51	17,723 34	7 26
Roads, grounds and walks	1,600 39	97	3,193 84	1 42	762 44	44	1,352 63	55
General administration	7,884 13	4 80	8,329 09	3 69	5,637 56	3 29	15,842 79	6 49
Office expenses	2,721 42	1 66	4,343 63	1 93	4,327 05	2 52	3,359 80	1 38
Traveling expenses	799 48	49	4,899 21	2 17	3,359 64	1 96	5,413 94	2 22
Fixed charges and contributions	24 959 50	15 20	22,580 62	9 99	30,524 90	17 79	27,721 06	11 36
Repairs and alterations	9,937 13	6 05	9,602 11	4 26	14,070 44	8 20	14,789 20	6 06
Special repairs	.....	.....	17,272 46	7 66	9,695 86	5 65	1,522 05	62
Grand total	$574,709 67	$350 00	$748,736 65	$332 03	$629,363 61	$366 76	$804,447 68	$329 69

MOVEMENT OF PATIENTS IN THE STATE HOSPITALS DURING THE THREE MONTHS ENDING SEPTEMBER 30, 1922, AS REPORTED BY SUPERINTENDENTS, AND STATEMENT OF CAPACITY AND OVERCROWDING ON SEPTEMBER 30, 1922

STATE HOSPITALS	Census, July 1, 1922	ADMISSIONS				DISCHARGES								Census, Sept. 30, 1922	Certified capacity	OVERCROWDING	
		First admissions	Re-admissions	Transfers	Total	Recovered	Much improved	Improved	Unimproved	Not insane	Died	Transferred	Total			Number	Per cent
Binghamton	2,717	69	21	4	94	4	2	7	1	..	46	2	62	2,749	2,400	208	8.7
Brooklyn	1,758	232	41	2	275	44	30	13	5	3	111	5	211	1,822	1,193	377	31.6
Buffalo	2,416	128	17	3	148	18	16	19	11	2	67	2	135	2,429	1,700	503	29.6
Central Islip	5,672	259	80	18	357	54	36	40	20	2	105	21	278	5,751	4,300	1,128	26.2
Gowanda	1,280	50	14	2	66	2	3	1	1	..	20	2	29	1,317	950	257	27.1
Hudson River	3,823	142	39	3	184	18	18	15	15	1	81	2	150	3,857	2,900	714	24.6
Kings Park	5,332	178	52	8	238	111	78	16	8	..	48	12	273	5,297	3,600	1,019	28.3
Manhattan	7,005	459	100	25	584	79	40	31	41	3	195	22	411	7,178	5,047	1,555	30.8
Middletown	2,189	42	15	4	61	5	..	4	9	1	27	2	48	2,202	1,870	227	12.1
Rochester	1,853	84	28	1	113	11	29	13	9	..	30	1	93	1,873	1,260	402	31.9
St. Lawrence	2,345	57	9	..	66	22	6	9	5	..	27	4	73	2,338	1,950	283	14.5
Utica	1,916	96	16	3	115	21	12	8	7	4	48	1	101	1,930	1,400	311	22.2
Willard	2,585	76	17	5	98	27	7	5	2	..	49	3	93	2,590	2,114	332	15 7
Total	40,891	1,872	449	78	2,399	416	277	181	134	16	854	79	1,957	41,333	30,684	7,316	23.8

Movement of Employees in the State Hospitals During the Three Months Ending September 30, 1922

State Hospitals	In Service July 1, 1922			Engaged			Left Service			In Service September 30, 1922			Vacancies September 30, 1922			Number of Patients, Excluding Paroles, Sept. 30, 1922, to		
	Medical officers	Ward employees	Other employees	Medical officers	Ward employees	Other employees	Medical officers	Ward employees	Other employees	Medical officers	Ward employees	Other employees	Medical officers	Ward employees	Other employees	Medical officers	Ward employees	All employees
Binghamton	10	279	201	..	58	31	..	62	31	10	275	201	4	4	3	260 8	9.5	5.4
Brooklyn	9	146	139	4	96	20	1	89	22	12	153	137	1	8	7	130.8	10.3	5.2
Buffalo	10	224	177	3	63	13	2	62	14	11	225	176	..	5	6	200.3	9.8	5.3
Central Islip	25	511	282	..	136	18	3	118	17	22	529	283	5	21	18	246.7	10 3	6.5
Gowanda	6	108	127	1	52	29	1	56	22	6	104	134	1	10	6	201.2	11 6	4 9
Hudson River	16	355	268	..	91	16		81	14	16	365	270	2	8	3	225.9	9.9	5.6
Kings Park	21	501	290	1	140	34	..	145	27	22	496	297	1	9	4	210.0	9.3	5.7
Manhattan	26	623	348	8	213	53	6	202	57	28	634	344	4	38	15	235.8	10.5	6.6
Middletown	9	213	173	..	61	23		59	17	9	215	179	3	16	8	233 0	9.8	5.2
Rochester	8	164	141	1	27	7	..	30	6	9	161	142	..	11	4	184.7	10.3	4.3
St. Lawrence	11	223	154	2	83	13	1	71	10	12	235	157	..	10	4	186.1	9.5	5.5
Utica	8	180	163	1	50	12	..	48	17	9	182	158	..	9	14	190.1	9.4	4.9
Willard	10	233	229	..	26	18	..	27	21	10	232	226	2	12	8	244.6	10.5	5.2
Total	169	3760	2692	21	1096	287	14	1050	275	176	3806	2704	23	161	100	215.9	10.0	5.7